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ANNUAL REPORT

OF THE

FIRE DEPARTMENT AND WIRE DIVISION

OF THE

CITY OF BOSTON

FOR THE

YEAR ENDING JANUARY 31, 1923



CITY OF BOSTON
PRINTING DEPARTMENT
1923

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ANNUAL REPORT

OF THE

FIRE DEPARTMENT

FOR THE YEAR 1922-23.

BOSTON, February 1, 1923.

HON. JAMES M. CURLEY,

Mayor of the City of Boston:

DEAR SIR,— I have the honor to submit, in accordance with section 24, chapter 3, Revised Ordinances of 1914, City of Boston, the annual report of the Fire Department for the year ending January 31, 1923.

I assumed the office of Fire Commissioner on August 24, 1922, relieving Major William J. Casey, Superintendent of the Printing Department, who had served as acting Fire Commissioner from April 1, 1922. During the interim from February 1, 1922, to April 1, 1923, the office of Fire Commissioner was held by acting Fire Commissioner Joseph P. Manning, chairman of the Board of Trustees of the Boston City Hospital.

FINANCES.

The total expenditure for the department for the year was \$3,375,809.93, which includes an appropria-

tion of \$85,537.27 expended by the Wire Division, and the following amounts expended under special appropriations:

Engine 7, new building	\$16,764 16
Remodeling house, Engines 26 and 35	11,542 83
Remodeling house, Engine 28 and Ladder 10	9,997 00
Total special appropriations	<u>\$38,303 99</u>

The revenue of the department for the year amounted to \$72,589.66.

FIRE Loss.

During the year the department responded to 6,134 alarms, of which number 2,733 were box alarms. The remainder were what is known as still alarms, *i. e.*, automatic, telephone, etc. While the total number of alarms responded to is higher than it has been for many years, it should be noted that the loss for 1922 amounted to \$3,304,595, or \$705,606 less than in the previous year. In my opinion there is little opportunity for comparison between the fire loss of ten years ago and the fire loss of today. There is no question but that the high fire losses of today can be attributed to the inflation of property values which has prevailed during and since the war. The same property destroyed in 1912 and 1922 would show a much larger loss for the latter year.

MOTORIZATION.

Ten new pieces of motor apparatus were added to the department during the year and were placed in service displacing some of the old horse-drawn equipment. The motorization of the department has been gradual but not rapid. In my opinion the time has arrived for the city to complete the motorization of its equipment. I believe the proper policy to pursue would be to appropriate sufficient money to complete the motorization of the department in 1923. Only in this way will the Boston Fire Department keep astride of the other cities of the country and maintain its high standard of efficiency.

I earnestly recommend therefore that an appropriation large enough to carry out this policy be provided

for 1923 so that all horse-drawn equipment may be displaced, and motor-driven apparatus installed throughout the department.

BUREAU OF FIRE PREVENTION AND INTELLIGENCE.

During the year the Fire Prevention Bureau was completely reorganized. Instead of detailing fifteen men to the Bureau at headquarters, two men from each district were detailed as inspectors within their respective districts. These men are under the direction of their superior officers. The advantages gained from this change are many. In particular, the men inspect buildings in their local districts where they are called upon to fight fires and are thereby given an opportunity to familiarize themselves with the conditions in their own districts, and gain considerable valuable information which will be of assistance to the department in many emergencies.

DEPARTMENT SCHOOLS.

The schools of the department have been successfully conducted throughout the year. Many members of departments from various cities and towns in New England were permitted to attend our schools upon the request of their chief officers. At the present time the department conducts a Fire College, Drill School, Chauffeurs' School, Engineers' School, and a School for Instruction in the Care of Motor Apparatus.

In addition to the foregoing the Fire Department co-operated with the Massachusetts Department of Education, Division of University Extension, so that members of this department were afforded an opportunity to take advantage of the University Extension Courses conducted by the Commonwealth.

In conjunction with Boston Metropolitan Chapter, The American Red Cross, courses in resuscitation were conducted in the department, and every member was drilled in the Shafer Prone Method of Resuscitation. Exercises in this method of resuscitation have been included in the weekly drills of each company, and the lessons learned in these cases have been successfully applied on several occasions.

FIRE ALARM BOXES.

There are now 1,268 boxes in the fire alarm system, an increase of thirty-two during the year. Over nine hundred of these boxes are accessible to the public, and the remainder are private boxes. During the year all fire alarm boxes and posts were painted.

MISCELLANEOUS.

Thawing devices were placed on motor pumping engines of the department for use during freezing weather. A thawing device is an essential part of the equipment of gasoline pumping engines, and is necessary for use when a frozen hydrant is encountered at a fire.

The work of remodeling the quarters of Engine Company 28 and Ladder Company 10, Centre street, Jamaica Plain, was completed at a cost of \$14,995.

A contract amounting to \$38,900 was let for a new house for Engine Company 7, East street. The work is now going forward, but was slightly delayed owing to difficulty in obtaining materials and being hampered by labor conditions.

RECOMMENDATIONS.

There are three important matters which require immediate attention if the Boston Fire Department is to maintain the high position it has held for many years.

The first of these items is the fire alarm office.

When the present site on Bristol street was selected for a fire alarm office no doubt those who made the selection felt it would take care of the needs of the city for many years. Nevertheless, the capacity of the fire alarm office is overtaxed at the present time. There is no room whatever to accommodate the future needs of the city. In addition the office is exposed to a very serious fire hazard. Several serious fires have occurred in recent years in the immediate vicinity of the fire alarm office, and it is only due to the extra precautions taken that the office has been preserved.

I heartily recommend that a thorough study be made of this problem with the idea in view to erect an adequate and fireproof fire alarm station somewhere in the park system of the city where there will be no exposure hazard of any kind.

Another important item which requires attention is the condition of the fire stations of the city.

The buildings now used for fire stations were erected many years ago, and at the present time do not conform to the requirements of a modern fire department. Some changes have been made but the progress has been very slow. Today we have stations which were erected to house horse-drawn equipment and small companies of men. Motor apparatus has replaced the horses, and the personnel of the companies has increased. The houses generally have not been changed to meet the demands of the new conditions. In many cases they are uncomfortable and unsafe, and in some cases unsanitary.

I recommend that a program be mapped out and followed, calling for the appropriation of a certain amount of money each year, to provide for remodeling department houses. The expense to accomplish this result would be too great to be assumed in any one year.

The location of Engine Company 26-35 on Mason street has come under my close observation. This, as is well known, is a very narrow street, and due to this and the congested traffic conditions in this particular section of the city, the apparatus located here is greatly hampered in responding to alarms of fires. Parking is permitted on the street, and delivery trucks are constantly coming and going.

After studying this question for some time I have come to the conclusion that a location at the junction of Shawmut avenue and Tremont street would be a proper and excellent location for a central fire station to house the chief of department, district chief and the two companies now stationed in Mason street. There is land owned by the city over the subway entrance which would provide an excellent site for a fire station, and the junction of streets at this location would improve the opportunity for the apparatus stationed in a house there to get a good start in responding to an alarm of fire.

CONCLUSION.

I desire to record here the wonderful spirit of co-operation manifested by the citizens of Boston in any matters concerning the Fire Department. Through their assistance and co-operation we have been particularly able

to make the various Fire Prevention and Clean-Up Campaigns successful.

I also wish to express my appreciation of the assistance and co-operation rendered to me and the Fire Department in general by the heads of the various city departments and public service corporations.

I wish to extend to all employees of the department my sincere thanks for the excellent manner in which they have performed their duties at all times, and I appreciate their earnest endeavor to maintain the high standard of efficiency which exists in the Boston Fire Department.

Yours very truly,

THEODORE A. GLYNN,
Fire Commissioner.

NAMES OF CHIEF ENGINEERS, OR CHIEF OF DEPARTMENT,
SINCE THE FIRE DEPARTMENT WAS ESTABLISHED,
JANUARY, 1826.

Samuel D. Harris	.	.	.	.	.	1826-28
Thomas C. Amory	.	.	.	.	.	1829-35
William Barnicoat	.	.	.	.	.	1836-53
Elisha Smith, Jr.	.	.	.	.	.	1854-55
George W. Bird	.	.	.	.	.	1856-65
John S. Damrell	.	.	.	.	.	1866-74
William A. Green*	.	.	.	.	.	1874-84
Lewis P. Webber	.	.	.	.	.	1884-1901
William T. Cheswell	.	.	.	.	.	1901-06
John A. Mullen	.	.	.	.	.	1906-14
John Grady*	.	.	.	.	.	1914
Peter F. McDonough	.	.	.	.	.	1914-19
Peter E. Walsh	.	.	.	.	.	1919-22
John O. Taber	.	.	.	.	.	1922

* Appointed Fire Commissioner.

REPORT OF CHIEF OF DEPARTMENT.

BOSTON, June 1, 1923.

FROM: THE CHIEF OF DEPARTMENT.
 To: THE FIRE COMMISSIONER.
 SUBJECT: ANNUAL REPORT, 1922-23.

I beg to submit the following summary of activities of the department in general for the fiscal year 1922-23:

FIRE LOSS.

Loss (exclusive of Marine loss)	\$3,304,595 79
Marine loss	14,336 42
<hr/>	<hr/>
Total loss	\$3,318,932 21
<hr/>	<hr/>
Number of alarms	6,134
Average loss (each)	\$541 00
<hr/>	<hr/>
Number of actual fires	5,159
Average loss (each)	\$643 00

ADDITIONS AND CHANGES.

Apparatus.

May 29, 1922, an American LaFrance motor-driven 85-foot aerial truck was placed in service with Ladder Company 13, replacing a Christie tractor-drawn aerial truck. Weight, fully equipped, without men, 10,500 pounds; 72 horse power.

June 12, 1922, an American LaFrance combination hose and chemical car was placed in service with Chemical Company 5, replacing old American LaFrance combination chemical car. Weight, fully equipped, without men, 10,500 pounds; 72 horse power.

June 28, 1922, a Christie tractor-drawn steam fire engine was placed in service with Engine Company 4, replacing horse-drawn steam fire engine and three horses. Weight, fully equipped, without men, 14,210 pounds; 48.6 horse power.

July 13, 1922, an American LaFrance 750-gallon combination pumper and hose motor car was placed in

service with Engine Company 6, replacing horse-drawn steam fire engine and three horses. Weight, fully equipped, without men, 11,030 pounds; 72 horse power.

July 19, 1922, an American LaFrance 750-gallon combination pumper and motor hose car was placed in service with Engine Company 12, replacing horse-drawn steam fire engine and three horses. Weight, fully equipped, without men, 11,030 pounds; 72 horse power.

July 19, 1922, an American LaFrance combination hose and chemical car was placed in service with Engine Company 12. Weight, fully equipped, without men, 9,470 pounds; 72 horse power. This replaces a horse-drawn hose wagon and two horses.

July 21, 1922, an American LaFrance 750-gallon combination pumper and hose motor car was placed in service with Engine Company 24. Weight, fully equipped, without men, 11,030 pounds; 72 horse power. This replaces horse-drawn hose wagon and two horses.

July 28, 1922, Chemical Company 10 was disbanded, the apparatus placed in reserve, and the members of the company reassigned.

August 1, 1922, an American LaFrance combination hose and chemical car was placed in service with Engine Company 13, replacing horse-drawn hose wagon and two horses. Weight, fully equipped, without men, 9,470 pounds; 72 horse power.

August 1, 1922, an American LaFrance 750-gallon combination pumper and hose motor car was placed in service with Engine Company 13, replacing horse-drawn steam fire engine and three horses. Weight, fully equipped, without men, 11,030 pounds; 72 horse power.

August 1, 1922, a Mack truck, equipped for carrying coal, was installed as a fuel car, and housed in the quarters of Rescue Company 1.

August 9, 1922, an American LaFrance 750-gallon combination pumper, hose and chemical car was placed in service with Engine Company 49, replacing a Seagrave combination hose and chemical motor car. Weight, fully equipped, without men, 11,030 pounds; 72 horse power.

August 10, 1922, an American LaFrance 1,000-gallon combination pump and hose motor car was placed in service with Engine Company 7, replacing horse-drawn steam fire engine, hose wagon and five horses. Weight, fully equipped, without men, 11,500 pounds; 72 horse power.

August 10, 1922, a Christie front-drive tractor, attached to a horse-drawn city service ladder truck, was placed in service with Ladder Company 26, replacing horse-drawn ladder truck and three horses. Weight, fully equipped, without men, 13,600 pounds; 48.6 horse power.

August 25, 1922, a Seagrave combination hose and chemical car was placed in service with Engine Company 45. Weight, fully equipped, without men, 9,470 pounds; 48.6 horse power. The addition of this piece of apparatus makes this a double-unit company.

October 13, 1922, Chemical Company 5 was disbanded, the apparatus placed in reserve, and the members of the company reassigned.

October 13, 1922, an American LaFrance combination chemical and hose motor car was placed in service with Engine Company 48. Weight, fully equipped, without men, 9,470 pounds; 48.6 horse power. The addition of this piece of apparatus makes this a double-unit company.

October 17, 1922, an American LaFrance combination chemical and hose motor car was placed in service with Engine Company 37, replacing an old type American LaFrance hose motor car. Weight, fully equipped, without men, 9,470 pounds; 72 horse power.

November 29, 1922, an American LaFrance combination chemical and hose motor car was placed in service with Engine Company 45, replacing Seagrave hose motor car which was installed on August 25, 1922. Weight, fully equipped, without men, 9,470 pounds; 48.6 horse power.

December 11, 1922, a Seagrave combination chemical and hose motor car was placed in service with Engine Company 1, replacing old type American LaFrance hose motor car. Weight, fully equipped, without men, 11,600 pounds; 48.6 horse power.

December 18, 1922, Reserve Tower, Serial No. 402, was placed in service with Tower Company 1, thus replacing Tower 1.

January 8, 1923, an American LaFrance combination pumper and hose motor car was placed in service with Engine Company 43, replacing a Christie tractor-drawn steam fire engine. Weight, fully equipped, without men, 11,030 pounds; 72 horse-power.

January 8, 1923, an American LaFrance combination pumper and hose motor car was placed in service with

Engine Company 11, replacing old type American LaFrance pumper. Weight, fully equipped, without men, 10,830 pounds; 72 horse-power.

January 8, 1923, an American LaFrance combination pumper and hose motor car was placed in service with Engine Company 19, replacing a Seagrave pumper. Weight, fully equipped, without men, 11,030 pounds; 72 horse-power.

January 8, 1923, an American LaFrance combination pumper and hose-motor car was placed in service with Engine Company 53, replacing a Seagrave pumper. Weight, fully equipped, without men, 12,200 pounds; 72 horse-power.

January 13, 1923, an American LaFrance combination pump and hose motor car was placed in service with Engine Company 45, replacing the American LaFrance pumper installed on November 29, 1922. Weight, fully equipped, without men, 12,200 pounds; 72 horse-power.

Chiefs' Automobiles.

There were four (4) new automobiles purchased for use by various chief officers, thus replacing vehicles that had become worn through constant service.

BUILDINGS.

The remodeling of the quarters of Engine Companies 26-35 was completed, the said work consisting of adding an additional floor, thus making the same a three-story structure. By this change the men are afforded the advantage of more comfortable quarters, in view of the fact that the companies are two of the most important in the down-town section.

In the outlying section of the city, the upper floors of Engine House 28 were entirely reconstructed to conform to the requirements of the building law, and also to afford more commodious quarters to the members housed therein.

At the quarters of Ladder Company 23, in the Grove Hall section, provisions were made, by extensive alterations, for the housing of the deputy chief of the third division. The dormitory and officers' rooms were also relocated to provide more adequate facilities for all members concerned.

At the quarters of Engine 1 and Ladder 5, a double

company, the entire interior was painted, the tile work and chimney repaired, the plaster repaired, and the radiator relocated.

Work was commenced on removing the stucco from the exterior of the quarters of Engine Company 44, and replacing the same with copper shingles, thus providing a more substantial structure. This work, however, will not be completed until the early part of the coming fiscal year.

APPARATUS AND EQUIPMENT.

Thorough inspections and tests of apparatus, equipment, and hose were made from time to time during the past year. Wherever defects were discovered, replacements and repairs were immediately made, in order that at no time should there be an impairment of service.

BUILDING INSPECTION.

The past practice of systematic weekly inspections by officers was continued this year, as it was found that constant attention in this respect was essential, due to the disregard by many property owners and tenants, of warnings issued by this department to clear stairways, dispose of unsightly and dangerous accumulations, and to comply with the city ordinances. It is only in this manner that the safety of tenants and employees can be assured.

Theaters, moving-picture houses, and halls were inspected weekly, and particular stress was laid upon the condition of fire-extinguishing appliances, as in a great many instances in the past the owners of these particular types of structures were wont to neglect this phase of protection afforded their patrons.

All public buildings and schoolhouses were inspected monthly, and the conditions as found were forwarded through channels to department headquarters. Defective conditions were noted and immediate steps were taken to remedy the same.

On April 20 the Fire Prevention Bureau was reorganized and renamed "The Bureau of Fire Prevention and Intelligence." The inspection squad, comprising one officer and fifteen privates, was relieved from duty and the members thereof were assigned to various companies throughout the department. Hereafter, inspections are to be carried on by two privates from each

district (a total of thirty inspectors) who will forward their reports promptly through channels to department headquarters for disposition. It is intended to cover a much wider field under this plan than has heretofore been the case.

FIRE CARD.

Preliminary steps are now under way in the formation of a Fire Card, the object of which is to answer as accurately and promptly as possible such questions as inevitably arise in the mind of the officer in command at a fire, as he forms for battle and hurriedly plans how best to strike. Such information at such a moment may often mean the difference between a knock-out and a drag-out fight, between small losses and large losses.

As an aid to the fire chief in determining his best line of attack, the card aims to inform him of the character of the battleground and of the factors favorable or unfavorable in the situation. It, therefore, shows:

1. The accesses or "holes," whether cut through walls, as entrances, fire-doors, etc., or through floors, as stairways, elevator wells, etc.
2. The "helps," such as sprinklers, standpipes, fire-escapes, etc.
3. The "hindrances" or obstructive features, such as structural weaknesses, exposures, contents of menacing nature, etc.
4. Any other information of fire-fighting value.

The card is devised to furnish maximum information in minimum space, with an assigned place for each item, so that any required point may be readily located. The filling out will involve very little time or trouble, once the facts are in hand; and, with the makeup of the card understood, the information contained can be readily grasped.

The card takes cognizance only of the *permanent*, features of a building. Unlawful conditions of temporary nature, and easily remedied, will not be noted on the card but memorandum of such should be made and referred to the Bureau of Fire Prevention and Intelligence for action.

Collectively, the cards constitute advance studies of potential battle-gounds, with a view to basing operations on exact knowledge, rather than on guess-work, when the crisis comes.

MUTUAL AID.

The department responded to thirty-one (31) alarms of fire outside of the city limits, divided as follows:

Cambridge, 1; Somerville, 11; Milton, 19.

It is indeed gratifying to note that much good has accrued as a result of this plan of interchange of service in time of urgent necessity.

SCHOOLS.

During the year eleven (11) appointees successfully passed the thirty days' intensive course of instructions in the department drill school. A member of the Natick Fire Department was also present during this time.

One hundred thirty-two (132) members of this department attended the lectures at the Fire College. Nine (9) representatives from Lynn, Everett, Natick and Milton also attended the course of lectures. The subjects covered were Marine Fires, Fire Alarm Operation, Building Inspection, Fire Prevention, Motor Apparatus, Water, Explosives and Combustibles, Fire-Fighting Tools and Appliances, Discipline, and Fire Extinguishment.

It is pleasing to note, in connection with the above courses mentioned, that the popularity of the subjects treated has attracted the attention of the officials of neighboring cities and towns, who have seen fit to send as many men as possible to gain an insight into the most modern methods employed in the prevention and extinguishment of fire.

One hundred eighty-six (186) members attended the Chauffeurs' School, receiving practical road lessons through the most congested sections of the city, and were also instructed in the care and operation of motor vehicles.

One hundred twelve (112) members attended the motor pump school, and were given practical instructions in the care and operation of gasolene pumping engines under every possible condition that is to be met at any fire that may occur.

The small number of men who attended the Steam Fire Engine School, seven (7) in all, is due to the fact that the steam fire engine as a medium of fire extinguishment is gradually but surely being supplanted by the gasolene-driven pumping engine, which latter apparatus, for fire-fighting purposes, is by far more effective.

FIRE PREVENTION WEEK.

The week from October 2 to 9 was set aside as Fire Prevention Week, and, in addition to the usual inspections by district and company officers, one member from each engine and ladder company, in its subdistrict inspected the cellars and yards of stores, and the cellars, backstairs and roofs of dwelling houses containing three or more families, with a view towards causing the removal of combustible rubbish, obstructions to egress, etc. The said inspections were made between meal periods, viz., 10 a. m. to 12 m. and 3 p. m. to 5 p. m. Each inspector submitted to department headquarters, daily, the street and number of each building inspected.

The inspectors detailed to the Bureau of Fire Prevention and Intelligence, together with such additional members of the department who were placed in this service during the week in question, inspected the high value district of the city for the purpose of causing the removal of combustible rubbish, articles blocking egress, and other simple but hazardous conditions tending to create a fire menace.

Lectures on Fire Prevention were delivered by district and company officers in the various public schools, upon request; also fire drills were held during the week. District chiefs arranged with masters of the several schools for the time for lectures and drills. The subjects covered in these lectures were for the most part taken from the following bases:

Statistics show a property loss by fire in the country of approximately \$500,000,000, with an estimated loss of life of upwards of fifteen thousand persons.

Experts say that eighty (80) per cent of the above loss of life and property was due to carelessness.

One of the most prolific causes of loss of life and property from fire is the careless habit of permitting accumulations of waste combustible material in cellars, attics, etc.

COMPANY DRILLS.

1. The annual company drills at Headquarters commenced September 1, 1922, and were completed November 13, 1922. While the main purpose of the drills is to acquire accuracy and standards in the execution of the duties of firemen, nevertheless the drills this year were marked not only in increased efficiency in these two characteristics, but in a general reduction in time of performance over that of previous years. The evolutions performed were as follows:

1. Connect two lines, 100 feet each, from engine to deluge set.
2. Connect two lines, 100 feet each, from engine to Morse gun.
3. Raise 50-foot ladder to fourth floor window and dog same.
4. Run 200 feet of $2\frac{1}{2}$ -inch line over 50-foot ladder, up stairway and show pipe out fifth floor window.
5. Raise 30-foot ladder to fire escape, carry 17-foot ladder over same to story above. Dog 30-foot ladder.
6. Run 250 feet of $2\frac{1}{2}$ -inch line over 30-foot ladder, over fire escape to roof, 75 feet from ground.
7. Take life line and haul 25-foot ladder to roof 75 feet from ground.
8. Take life line, haul 200 feet $2\frac{1}{2}$ -inch hose to roof.
9. Run 100 feet $2\frac{1}{2}$ -inch hose from engine, connect Morse gate and Bresnan nozzle.
10. Connect chuck to hydrant (flexible suction), water to engine.

2. The following pages show the result of the drills in which all companies participated, except the three fireboat crews. These tables show the list of companies drilling, the time consumed in each evolution, and the time consumed by each company in completing all evolutions.

DIVISION ONE.

Officers.	Men.	EVOLUTION NUMBER.										Men.	S.								
		1.		2.		3.		4.		5.		6.		7.		8.		9.		10.	
		M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.
DISTRICT No. 1.																					
Engine Company 5.....	1	7	30	26	1	6	1	20	1	5	1	31	1	50	1	10	25	32	9	55	
Engine Company 9.....	1	7	35	22	1	20	1	25	1	40	1	31	1	35	1	39	25	28	9		
Engine Company 11.....	2	7	33	30	1	25	1	45	1	2	1	45	2	50	1	26	31	30	10	47	
Engine Company 40.....	1	8	27	23	1	1	15	1	45	1	24	1	35	1	46	23	33	8	31		
Ladder Company 2.....	2	9	34	26	58	1	35	44	1	25	1	35	1	45	1	17	50	9	9		
Ladder Company 21, Chemical 7.....	2	7	30	22	1	6	1	28	56	1	30	1	46	1	40	19	26	9	3		
DISTRICT No. 2.																					
Engine Company 50.....	1	7	32	25	1	30	1	20	1	4	1	26	1	49	1	51	22	35	9	54	
Engine Company 32.....	1	6	50	38	1	35	1	40	1	28	2	1	55	1	15	31	33	12	25		
Engine Company 36.....	1	6	40	23	1	23	1	25	1	2	2	5	2	13	1	12	30	27	11	20	
Engine Company 27.....	1	8	50	28	1	16	1	28	59	1	50	1	48	1	40	35	38	10	32		
Ladder Company 9.....	1	8	42	30	1	6	1	35	58	1	38	2	15	1	58	35	1	11	19		
Ladder Company 22.....	1	8	29	40	1	8	1	25	52	1	38	1	27	1	41	22	42	9	24		
DISTRICT No. 3.																					
Engine Company 38.....	1	8	42	31	1	19	1	35	46	1	46	1	54	1	45	1	27	40	9	45	

FIRE DEPARTMENT.

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Engine Company 25.....	2	7	28	30	1	24	1	24	1	51	1	39	1	40	1	35	1	51	1	39	1	40	1	35	1	32	1	53
Engine Company 39.....	2	7	34	23	1	11	1	29	1	44	1	36	1	41	1	23	1	44	1	36	1	41	1	23	1	50	1	47
Ladder Company 8.....	2	7	35	26	1	15	1	45	1	29	1	33	1	48	1	20	1	33	1	48	1	20	1	33	1	8	1	42
Ladder Company 18, Tower 3.....	3	8	50	31	1	04	1	55	1	59	1	34	1	30	1	30	1	59	1	34	1	30	1	35	1	10	1	49
District No. 4.																												
Engine Company 4.....	2	6	46	28	1	35	1	30	1	4	1	27	1	55	1	1	1	22	1	22	1	31	1	10	1	39		
Engine Company 8.....	1	8	33	28	1	5	1	18	1	45	1	30	2	45	1	19	1	27	1	27	1	9	1	10				
Ladder Company 1.....	2	8	43	30	1	31	1	41	1	38	1	30	1	43	1	23	1	45	1	23	1	45	1	9	1	22		
Engine Company 6.....	2	11	20	30	1	13	1	18	1	43	1	31	1	46	1	45	1	21	1	35	1	9	1	2				
Ladder Company 24, Tower 1.....	1	1	49	45	1	17	1	55	1	46	1	49	1	46	1	29	1	59	1	59	1	11	1	21				
District No. 5.																												
Engine Company 26.....	1	8	30	24	1	20	1	25	1	5	1	40	1	28	1	55	1	21	1	27	1	9	1	35				
Engine Company 10.....	1	8	35	25	1	23	1	26	1	51	1	32	1	30	1	40	1	23	1	32	1	9	1	17				
Rescue 1.....	1	7	40	22	1	26	1	19	1	48	1	45	1	55	1	40	1	24	1	1	1	10	1	19				
Engine Company 35.....	2	7	33	23	1	1	1	50	1	51	1	36	1	40	1	33	1	15	1	27	1	9	1	8				
Ladder Company 17.....	1	8	50	25	1	6	1	15	1	55	1	40	1	36	1	49	1	28	1	42	1	9	1	46				
Engine Company 7.....	1	8	30	40	1	20	1	18	1	54	1	42	1	50	1	44	1	18	1	40	1	9	1	56				

COMPANY RECORDS.—By DISTRICTS.

District No. 1.—Engine Company 40
 District No. 2.—Ladder Company 22
 District No. 3.—Ladder Company 8
 District No. 4.—Engine Company 6
 District No. 5.—Engine Company 35

8 minutes 31 seconds.
 9 minutes 24 seconds.
 8 minutes 42 seconds.
 9 minutes 2 seconds.
 9 minutes 8 seconds.

DIVISION TWO.

EVOLUTION NUMBER.

Officers	En ^{ds}	EVOLUTION NUMBER.										Total Time.		
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.			
M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	M.	S.	
DISTRICT NO. 6.														
Engine Company 43,	1	7	35	37	1	40	1	24	48	1	46	1	42	40
Ladder Company 5,	1	8	40	35	1	21	1	50	51	1	45	1	40	55
Ladder Company 20,	1	7	36	32	1	26	1	30	1	1	45	1	58	1
Engine Company 1,	1	8	36	23	1	30	1	33	55	1	37	1	32	33
Engine Company 15,	1	8	40	26	1	26	1	38	1	40	1	51	2	52
Engine Company 2,	2	9	27	27	1	4	1	4	50	1	32	1	20	52
DISTRICT NO. 7.														
Ladder Company 3,	2	11	26	24	50	1	9	40	1	39	1	53	40	20
Engine Company 22,	1	9	33	23	1	16	1	2	51	1	35	1	31	38
Engine Company 33,	1	7	29	20	1	35	1	30	52	1	21	1	38	44
Engine Company 3,	1	11	38	25	56	1	5	57	1	23	1	25	1	21
Ladder Company 13, Tower 2,	2	8	28	23	55	1	15	39	1	21	1	23	29	17
Ladder Company 15,	1	8	29	27	1	21	1	19	46	1	23	1	26	1

COMPANY RECORDS.—D1 DISTRICTS.	
District No. 6.—Engine Company 2	8 minutes 8 seconds.
District No. 7.—Ladder Company 13, Tower Company 2	19 seconds.
District No. 8.—Engine Company 13	50 seconds.
District No. 11.—Engine Company 31	3 minutes 35 seconds.
	1 minute 2 seconds.
	39 seconds.
	1 minute 18 seconds.
	1 minute 18 seconds.
	29 seconds.
	15 seconds.
	25 seconds.
	20 seconds.
	19 seconds.
	9 minutes 38 seconds.
	9 minutes 43 seconds.
RECORD FOR EACH EVOLUTION.	
No. 1.—Engine Company 6	•
No. 2.—Engine Company 20	•
No. 3.—Ladder Company 3	•
No. 4.—Engine Company 22	•
No. 5.—Ladder Company 13, Tower Company 2	•
No. 6.—Engine Company 51	•
No. 7.—Ladder Company 46	•
No. 8.—Ladder Company 13, Tower Company 2	•
No. 9.—Engine Company 35	•
No. 10.—Ladder Company 12, Tower 2	•

DIVISION THREE.

Year Entered or Left the City	District No.	Evolution Number.										Total Time.								
		1.		2.		3.		4.		5.										
		M.	S.	M.	S.	M.	S.	M.	S.	M.	S.									
Engine Company 21.....	2	10	40	38	1	25	1	45	1	5	1	39	41	43	40	10	57			
Engine Company 24.....	2	9	37	26	1	11	1	22	49	1	26	1	26	35	16	33	8	41		
Ladder Company 4.....	2	12	41	29	1	10	1	28	1	7	1	39	1	21	37	21	37	9	30	
Engine Company 12.....	1	12	29	20	57	1	32	48	1	21	1	26	37	20	29	8	19			
Engine Company 23.....	2	8	47	25	1	20	1	31	58	1	27	1	26	36	19	27	9	16		
DISTRICT No. 9.																				
Ladder Company 7.....	2	7	43	27	1	16	1	32	54	2	1	45	1	8	23	43	10	51		
Engine Company 52.....	2	7	31	31	1	32	1	25	58	1	55	1	55	54	33	33	31	10	45	
Ladder Company 29.....	1	7	33	26	1	8	1	45	42	1	54	1	44	53	27	51	10	23		
Engine Company 18.....	2	8	32	29	1	9	1	28	58	1	38	1	50	51	35	36	10	6		
Engine Company 17.....	2	6	31	22	1	19	1	26	48	1	35	1	37	53	56	40	10	7		
DISTRICT No. 10.																				
Ladder Company 28.....	1	8	40	23	1	20	1	34	1	15	1	40	1	55	55	37	35	10	54	
Ladder Company 10.....	1	7	1	35	1	35	1	35	1	10	1	48	2	15	1	30	32	50	12	50
Engine Company 42.....	1	7	37	37	1	18	1	37	1	37	1	40	2	15	45	30	35	10	54	
Ladder Company 30.....	2	6	33	24	1	40	1	31	55	1	45	1	55	53	21	42	10	39		

FIRE DEPARTMENT.

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Ladder Company 23.....	2	8	42	27	1	3	1	34	54	1	41	1	34	18	52	45	9	50	
DISTRICT No. 13.																			
Engine Company 30.....	1	7	37	20	1	8	1	33	51	1	38	1	55	46	22	35	9	50	
Ladder Company 25.....	1	5	35	30	1	26	1	35	55	1	45	1	43	56	30	37	10	32	
Engine Company 45.....	1	6	35	24	1	26	1	24	53	2	20	1	41	57	29	44	10	53	
Ladder Company 16.....	1	7	38	28	1	25	1	50	1	10	2	5	2	52	27	1	11	55	
Engine Company 53.....	1	5	35	40	1	35	1	35	1	1	35	1	42	1	20	23	50	11	15
DISTRICT No. 14.																			
Engine Company 16.....	2	8	28	26	1	17	1	27	55	1	40	1	34	44	20	26	9	17	
Ladder Company 6.....	1	8	29	26	1	18	1	24	42	1	29	1	47	57	28	38	9	38	
Engine Company 46.....	2	11	34	20	1	34	1	16	43	1	30	1	18	39	24	31	8	49	
Engine Company 20.....	2	11	24	19	1	18	1	7	58	1	38	1	35	40	20	40	8	59	
Ladder Company 27.....	1	8	25	25	1	9	1	33	50	1	51	1	41	44	23	29	9	30	
DISTRICT No. 15.																			
Engine Company 49.....	1	5	37	22	1	20	1	26	50	1	38	1	36	57	26	37	9	49	
Engine Company 48.....	2	8	43	22	1	16	1	29	55	1	46	1	29	53	25	40	9	59	
Ladder Company 28.....	1	7	45	35	1	8	1	50	44	1	30	1	47	50	21	35	10	5	
Engine Company 19.....	1	6	39	22	1	40	1	20	57	1	45	2	1	10	20	45	10	58	
COMPANY RECORDS.—By DISTRICTS.																			
District No. 9.—Engine Company 12																			
District No. 10.—Engine Company 18																			
District No. 12.—Ladder Company 23																			
District No. 13.—Engine Company 30																			
District No. 14.—Engine Company 46																			
District No. 15.—Engine Company 49																			

District No. 9.—Engine Company 12
 District No. 10.—Engine Company 18
 District No. 12.—Ladder Company 23
 District No. 13.—Engine Company 30
 District No. 14.—Engine Company 46
 District No. 15.—Engine Company 49

8 minutes 19 seconds.

10 minutes 6 seconds.

9 minutes 50 seconds.

8 minutes 49 seconds.

9 minutes 49 seconds.

HYDRANTS.

The following is a list of the types and number of each, of hydrants, in service for fire purposes, as of January 31, 1923:

Ordinary post	.	.	.	.	.	.	.	4,134
Boston post	.	.	.	.	.	.	.	3,275
Lowry	.	.	.	.	.	.	.	1,413
Boston lowry	.	.	.	.	.	.	.	580
Bachelder & Finneran post	.	.	.	.	.	.	.	376
High pressure	.	.	.	.	.	.	.	313
Boston	.	.	.	.	.	.	.	272
Chapman post	.	.	.	.	.	.	.	192
Ludlow post	.	.	.	.	.	.	.	20
Matthew post	.	.	.	.	.	.	.	4
Coffin post	.	.	.	.	.	.	.	2
Total	.	.	.	.	.	.	.	<u>10,581</u>

HIGH PRESSURE SYSTEM.

The records of our two high pressure stations for the year are as follows:

Station No. 1.—Total alarms to which pumps responded, 240; total time pumps actually operated, 60 hours 38 minutes. Gallons of water discharged, 230,000.

Station No. 2.—Total alarms to which pumps responded, 169; total time pumps actually operated, 75 hours 39 minutes. Gallons of water discharged, 832,000.

A description of the Venturi meter, used in recording the water discharge, will no doubt prove of great interest. There is one installed in each station, and it resembles a tall, clocklike instrument, placed in line with and adjoining the operating board. Inside of the casing are two independent clocks. One of these revolves the chart on which the fluctuating flows are recorded in red ink, *i.e.*, the exact amount and the exact time corresponding with our standard time. The other clock operates the continuous flows similar to a gas-meter, and after each working fire, the latest reading may be subtracted from the previous one, and this manner it is possible to obtain the flow for either the individual operation or the operations for the entire year.

The indicators on this meter are actuated by the velocity of the water passing through a short section of

pipe placed in the main discharge line and outside of the station. The contracted pipe is 16 inches at the entrance and 9 inches at the throat, and the water in passing through this pipe at high velocity does so with a difference in pressures.

The difference in pressures, above-mentioned, is brought to the clock arrangement by two three-quarter inch brass pipes which change the position of the two columns of mercury and floats, and by this change the gallons passing through per minute are calibrated. Furthermore, owing to the construction of these meters they do not record flows under six hundred gallons per minute.

The accuracy of the Venturi meter is unquestioned, in view of the fact that its records and readings are accepted by the National Board of Fire Underwriters as authentic. In addition to the recording of flows, the meter also keeps the operator posted as to what his pumps are doing, thus enabling him to intelligently cut in other pumps at the proper time, and, conversely, if need be, to discontinue them.

From time to time tests have been conducted from both stations, at which representatives were present from leading underwriting boards, both national and local, all of which tests were very successful.

I can truthfully say that the High Pressure problem in the City of Boston has passed through the experimental stages, and from the practical work performed under stress, it has proven an absolute necessity in the extinguishment of fires in the high value section of the city. It is hoped that rapid strides will be made in the extension of this system in the future, in order that the city may be adequately protected at all times.

RECOMMENDATIONS.

Apparatus.

In order that the motorization of this department may be one hundred per cent complete, and, furthermore, in order that we may be enabled to dispose of horses entirely from our fire service, I earnestly recommend the acquisition of the following major motor-driven fire-fighting apparatus to be located in the houses specified:

Engine Company 9, Paris Street, East Boston.—One 750-gallon pumper, one combination chemical and hose car to replace horse-drawn engine and hose wagon.

Engine Company 40, Sumner Street, East Boston.—One 750-gallon pumper, one combination chemical and hose car to replace horse-drawn engine and hose wagon.

Engine Company 27, Elm Street, Charlestown.—One 750-gallon pumper, one combination chemical and hose car to replace horse-drawn engine and hose wagon.

Engine Company 32, Bunker Hill Street, Charlestown.—One 750-gallon pumper, one combination chemical and hose car to replace horse-drawn engine and hose wagon.

Engine Company 29, Chestnut Hill Avenue, Brighton.—One 750-gallon pumper, one combination chemical and hose car to replace horse-drawn engine and hose wagon.

Engine Company 34, Western Avenue, Brighton.—One 750-gallon pumper, one combination chemical and hose car to replace horse-drawn engine and hose wagon.

Engine Company 17, Meeting House Hill, Dorchester.—One 750-gallon pumper to replace Christie tractor-drawn steam fire engine.

Engine Company 22, Warren Avenue, South End.—One 750-gallon pumper to replace Christie tractor-drawn steam fire engine.

Engine Company 43, Andrew Square, South Boston.—One 750-gallon pumper to replace Christie tractor-drawn steam fire engine.

NOTE.— The three latter-mentioned tractors are practically worn out, and have proven unreliable in their response, due to the fact that the distances to be traversed are so exceptionally long.

Ladder Company 3, Harrison Avenue, South End.—One city service truck to replace horse-drawn truck.

Ladder Company 19, Fourth Street, South Boston.—One city service truck to replace horse-drawn truck.

Ladder Company 23, Washington Street, Dorchester.—One city service truck to replace horse-drawn truck.

Ladder Company 24, North Grove Street, West End.—One city service truck to replace horse-drawn truck.

Ladder Company 27, Walnut Street, Dorchester.—One city service truck to replace horse-drawn truck.

Ladder Company 7, Meeting House Hill, Dorchester.—One city service truck to replace obsolete motor-driven truck.

NOTE.— This truck is only dependable when there is no snow on the ground and the weather is normal. Once the cold weather sets in, it is utterly useless, and should never be part of the fire-fighting equipment of an up-to-date fire department.

Ladder Company 2, Paris Street, East Boston.—One 75-feet aerial truck to replace horse-drawn apparatus.

Ladder Company 9, Main Street, Charlestown.—One 75-foot aerial truck to replace horse-drawn apparatus.

Reserve Apparatus.

One 750-gallon pumper.

FIRE STATIONS.

In order that the fire stations in which our men are housed shall conform more strictly to modern building construction, and, furthermore, that the floors shall be fireproofed in contemplation of the motorization of many companies now having horse-drawn apparatus, I submit herewith a list of quarters requiring new structures or extensive remodelling and repairs:

Engine Company 12.—General repairs and remodelling.

Engine Company 11, Ladder Company 21.—Fireproofing and general improvements.

Engine Company 13.—Alterations and showers.

Engine Company 19.—Remodelling and installation of shower baths.

Engine Company 20, Ladder Company 27.—Shower baths and general alterations.

Engine Company 24.—General repairs and shower baths.

Engine Company 27.—Fireproofing apparatus floor and improving conditions generally.

Engine Company 28.—Completion of work undertaken under a special appropriation for general rebuilding.

Engine Company 32.—General repairs and shower baths.

Engine Company 34.—Fireproofing apparatus floor.

Engine Company 40.—New building.

Ladder Company 12.—Repairs to dormitory.

Chemical Company 7.—General repairs and shower baths.

CONCLUSION.

To the Boston Board of Fire Underwriters, the National Board of Fire Underwriters, the New England Insurance Exchange and the National Fire Protection Association, who so kindly co-operated with this depart-

ment in the development of many progressive measures tending towards the elimination of the many common causes of fire, I wish to extend my sincere appreciation. Also to the various municipal departments, public service corporations, and the Boston Protective Department, which rendered such valuable assistance during the past year, I wish to express my thanks.

Finally, to the members of the department who so devotedly and efficiently performed their many difficult and, at times, hazardous tasks, I can only express my heartfelt gratitude, and it is my hope that this department shall retain its place among the foremost fire departments throughout the world with a continuance of the high caliber of duty already demonstrated by our men in the past.

Respectfully,

JOHN O. TABER,

Chief of Department.

FIRE ALARM BRANCH.

FROM: THE SUPERINTENDENT OF FIRE ALARM BRANCH.
 To: THE FIRE COMMISSIONER.
 SUBJECT: ANNUAL REPORT OF FIRE ALARM BRANCH, 1922-1923.

I submit herewith the annual report of the Fire Alarm Branch for the fiscal year ending January 31, 1923:

OPERATING DIVISION.

NOTE.—The records of this division are for the calendar year 1922.

BOX ALARMS RECEIVED AND TRANSMITTED.

First alarms	.	.	.	.	.	.	.	2,700
Second alarms	.	.	.	.	.	.	.	42
Third alarms	.	.	.	.	.	.	.	12
Fourth alarms	.	.	.	.	.	.	.	3
Total	.	.	.	.	.	.	.	<u>2,757</u>

BOX ALARMS RECEIVED BUT NOT TRANSMITTED.

Same box received two or more times for same fire	.	.	.	.	.	.	259
Adjacent boxes received for same fire	.	.	.	.	.	.	207
Received from boxes but transmitted as stills	.	.	.	.	.	.	8
Total	.	.	.	.	.	.	<u>474</u>

STILL ALARMS RECEIVED AND TRANSMITTED.

Received from citizens (by telephone)	.	.	.	.	.	1,909
Received from police department (by telephone)	.	.	.	.	.	290
Received from fire department stations (by telephone),	.	.	.	.	.	1,248
Received from telephone for which box alarms were later transmitted	.	.	.	.	.	185
Received from department boxes, transmitted as stills	.	.	.	.	.	8
Mutual Aid — adjacent cities and towns, classed as stills	.	.	.	.	.	34
Emergency services, classed as stills	.	.	.	.	.	49
Total	.	.	.	.	.	<u>3,723</u>

AUTOMATIC AND A. D. T. ALARMS.

Boston Automatic Company, transmitted by company to department stations	141
Department box alarms transmitted in connection with same	10
Before automatic alarm, after automatic	8
A. D. T. Company received at this office	50
Department boxes transmitted in connection with same, before the A. D. T. alarm, 5; after the A. D. T. alarm, 4	9
Received after still alarms were transmitted	2
A. D. T. alarms transmitted by this office	39

SUMMARY OF ALARMS.

Box alarms, including multiples	3,223
Still alarms, all classes	3,447
Boston Automatic Company, alarms	141
A. D. T. Company, alarms	50
 Total received from all sources	 <u>6,861</u>

Exclude following duplications:

Box alarms received and not transmitted	466
Still alarms for which department box alarms were transmitted	185
Boston Automatic Company, alarms for which department box alarms were transmitted	18
A. D. T. Company alarms for which department box alarms were transmitted	14
 Total duplications eliminated	 <u>683</u>

Total of alarms with duplications eliminated and to which department apparatus responded

6,178

FIRE ALARM BOX RECORDS.

Boxes from which no alarms were received	472
Box tests and inspections	10,174

(NOTE.— All keyless doors are tested weekly.)

CONSTRUCTION DIVISION.

EXTERIOR WORK.

The prescribed districts of 1920 and 1921, wherein overhead wires were to have been removed, were elim-

inated by law because of the burden imposed on corporations and city departments as a result of war conditions. Quite extensive improvements in the underground system were planned by this department, however, but cable, which under the contract should have been delivered in October, was not delivered until after snow came in December and as a result the bulk of the work remains uncompleted.

Fifteen fire alarm box posts, two cable test posts and two combination cable traffic bell posts were set. Thirty-four box posts and two cable test posts were reset or replaced by new for various reasons. Two thousand eight hundred seventy feet of ducts were laid underground; two manholes and three handholes were built, and two hundred sixty-six feet of ducts were abandoned.

Twenty-six thousand seven hundred twenty-six feet of cable was hauled into underground ducts for extension of service and to make possible the removal of overhead wires and about five thousand feet of cable was installed to replace defective cable. Ten miles of line wire and sixty-six hundred feet of cable was strung on poles as extensions to system and to replace old and about five miles of wire and about four thousand feet of cable was removed from poles.

Thirty-two new fire alarm boxes were established. Seventeen of these boxes are for the use of the general public. All fire alarm boxes and posts were painted.

Many changes and additions were made to the lighting equipment in several department stations.

UNDERGROUND CABLES INSTALLED.

City Proper.

	Cond.	Feet.
Post Office square, Milk street to Water street	19	350
Washington street, West street to Summer street	4	675
New post connections	61	100
New post connections	37	81
New post connections	20	50
New post connections	19	220
New post connections	10	370

South Boston.

H street, East Broadway to East Fourth street	10	300
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Dorchester.

	Cond.	Feet.
Columbia road and Hancock street, Up-hams Corner to Jerome street	19	1,184
Hancock street, Jerome street to Bowdoin street	19	1,931
Bowdoin street, Hancock street to Quincy street	19	1,634
Post and pole connections	20	70
Post and pole connections	4	200

Roxbury and Jamaica Plain.

Huntington avenue, Wait street to South Huntington avenue	10	2,065
South Huntington avenue, Huntington avenue to Centre street	10	5,118
Dudley street, Adams street to Engine 12, School street, Washington street to Byron court	10	1,163
Brookline avenue, Box 2312 to Box 2316, Brookline avenue, Lansdowne street to Fullerton street	10	1,050
New post and pole connections	6	1,408
New post and pole connections	6	290
New post and pole connections	4	462

Brighton.

Market street, Washington street to Western avenue	10	6,040
Summit avenue, Allston street to Commonwealth avenue	4	493
New post and pole connections	6	473
New post and pole connections	4	375

FIRE ALARM BOX POSTS INSTALLED WITH DUCT LENGTHS.

South Boston.

	Feet.
East Fourth and H streets	15
East Sixth and I streets	49
G street opposite East Sixth street	110

Dorchester.

Massachusetts avenue and Clapp street (2 ducts)	17
Pleasant and Thornley streets.	

Roxbury.

St. Mary's and Mountfort streets	107
--	-----

Jamaica Plain.

School street opposite Byron court	32
--	----

West Roxbury.

Poplar street and Hillside avenue	45
Belgrade and Colberg avenues	22
Belgrade avenue and Bradwood street	32
Beech street and Colberg avenue	18
Anawan and Clement avenues	25
Maple and Garden streets	18

Brighton.

Cambridge street near Gas Works	14
Commonwealth and Summit avenues	18

FIRE ALARM BOX POSTS RESET.

State and Kilby streets (raised to new grade).	
Dartmouth and Buckingham streets (raised to new grade).	
Dewey square (raised to new grade).	
Huntington and Parker Hill avenues (raised to new grade).	
Huntington avenue and Forsyth street (raised to new grade).	
Jersey and Queensberry streets (raised to new grade).	
Brookline avenue and Fullerton street (change of curb line).	
Cambridge and Charles streets (relocated)	13
Brainerd road and Gorham street (relocated)	18
Stuart and Carver streets (relocated)	125
Commonwealth avenue and Deerfield street (new type post).	
Hereford and Newbury streets new type posts (2 ducts)	15
Congress street and Dorchester avenue (broken by truck).	
Commonwealth avenue and Essex street (broken by truck).	
Compton and Emerald streets (broken by truck).	
Berkeley and Marlboro streets (broken by truck).	
Albany and Northampton streets (broken by truck).	
Dover street and Shawmut avenue (broken by truck).	
Warren street and Rockville park (broken by truck).	
West Cottage and Judson streets (broken by truck).	
Dudley and Magnolia streets (broken by truck).	

Twelve other posts were broken by vehicles which required the replacement of top sections of posts. The post at Milk and Hawley streets was temporarily removed because of the construction of an office building.

NEW CABLE TEST POSTS INSTALLED.

Washington and Cambridge streets, Brighton.
Washington and Harvard streets, Dorchester.

NEW COMBINATION TEST-TRAFFIC BELL POSTS.

Tremont and Church streets, 2 ducts	13 feet
Tremont and Eliot streets, 2 ducts	14 feet

TEST POST RELOCATED.

Dorchester and Centre avenues, 2 ducts	16 feet
--	---------

ADDITIONAL TEST POST DUCTS.

Harrison avenue and Northampton street, 2 ducts	28 feet
---	---------

NEW CONDUITS.

Summit avenue, between Commonwealth avenue and Allston street	423 feet
K street, between Fourth and Fifth streets	262 feet
East Fourth street, near K street	70 feet
H street, between Broadway and East Fourth street	235 feet

NEW POLE CONNECTIONS.

Richmond street at Dorchester avenue (extension)	141 feet
Adams street at Dorchester avenue	168 feet
Washington street at River street	56 feet
Colliston road at Kilsyth road	221 feet
Windsor road at Corey road	94 feet
Allston street at Summit avenue	32 feet
Anawan avenue at Park street	31 feet
Maple street at Pomfret street	42 feet
Longwood avenue at Huntington avenue	203 feet
Canterbury street at Circuit drive (extension)	25 feet

MANHOLES BUILT.

Summit avenue at Allston street.
K street at East Fourth street.
K street at East Fifth street (handhole).
H street at East Fourth street (handhole).
Summit avenue at Commonwealth avenue (handhole).

DUCTS ABANDONED.

Centre avenue at Dorchester avenue, 2 ducts	73 feet
Longwood avenue at Huntington avenue	33 feet
Cambridge and Charles streets	12 feet
Hereford and Newbury streets	15 feet
Brainerd road, opposite Marshall terrace	35 feet
Eliot and Warrenton streets	25 feet

PUBLIC FIRE ALARM BOXES ESTABLISHED.

Location.

2317. Brookline avenue and Fullerton street.
2383. South Huntington avenue, opposite No. 200.

- 2574. Glendower road, opposite No. 83.
- 2575. Beech and Wiggin streets.
- 2645. Washington and Heron streets.
- 2655. North avenue and Wright road.
- 2657. Centre and Stimson streets.
- 2748. La Grange street and Brook Farm road.
- 2752. Perham and Winslow streets.
- 2763. Spring and Cypress streets.
- 3126. Massachusetts avenue and Clapp streets.
- 3574. Randolph and Richmond roads.
- 3626. Adams and Franconia streets.
- 5144. Commonwealth and Summit avenues.
- 5196. Breck avenue and Brayton road.
- 5299. Bellamy and Richards streets.
- 646. Putnam and Falcon streets.

SCHOOLHOUSE BOX ESTABLISHED.

- 2448. School street, opposite Byron court, auxiliary to Theodore Roosevelt School.

PRIVATE FIRE ALARM BOXES ESTABLISHED.

- 124 Lincoln power station.
- 1288. Federal Reserve Bank.
- 1548. John Hancock building.
- 1668. City Hospital.
- 2354. Peter Bent Brigham Hospital.
- 2461. Lotus place carhouse.
- 252. Forest Hills storage yard.
- 342. Boston Elevated carhouse, Dorchester avenue and Park street.
- 3653. Boston Elevated carhouse, Dorchester avenue, near Pierce square.
- 467. Boston Elevated carhouse, Arlington avenue.
- 658. Boston Elevated carhouse, Eagle street.
- 671. Boston, Revere Beach & Lynn Railroad shops, Orient Heights.
- 7125. Army supply base.
- 7336. Boston Elevated carhouse, P street.

BOXES RELOCATED.

- 1424. From John Hancock building, 178 Devonshire street to Massachusetts Trust building, 200 Devonshire street.
- 1514. From Eliot and Warrenton streets to Stuart and Carver streets.
- 2764. From Spring and Gould streets to Spring and Billings streets.
- 5126. From Brainerd road, opposite Marshall terrace, to Brainerd road and Gorham street.

5143. From Summit avenue and Allston street to Summit avenue and Corey road.
 647. From Condor street, near Pottery Works, to Condor street, near Brooks street.

FIRE ALARM BOXES IN SERVICE.

Total number	1,268
Owned by Fire Department	891
Owned by Schoolhouse Department	207
Owned by Automatic Fire Alarm Company	63
Privately owned	107

DEPARTMENT BOXES.

On fire alarm box posts	481
On poles	385
On buildings	20
Inside buildings	5
Equipped with keyless door (bell ringing attachment),	836
Equipped with keyless doors (glass guards)	48
Equipped with key doors	7
Equipped with auxiliary attachments	15
Designated by red lights	429

SCHOOLHOUSE BOXES.

On fire alarm posts	22
On poles	15
On buildings	101
Inside buildings	69
Equipped with keyless doors	150
Equipped with key doors	57
Equipped with auxiliary attachments	161
Designated by red lights	20

AUTOMATIC FIRE ALARM COMPANY BOXES.

On poles	6
On buildings	19
Inside buildings	38
Equipped with keyless doors	9
Equipped with key doors	54

PRIVATE BOXES.

On poles	7
On buildings	32
Inside buildings	68
Equipped with keyless doors	14
Equipped with key doors	93
Equipped with auxiliary attachments	11

CLASSIFICATION OF FIRE ALARM BOXES.

Academies	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Armory	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Asylums	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Car houses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	11
Cemetery	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Church	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
City yard	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
Home for Aged People	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
Hospitals	.	.	.	.	.	.	.	.	.	.	.	.	.	.	21
Hotels	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Manufacturing plants	.	.	.	.	.	.	.	.	.	.	.	.	.	.	26
Museum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Navy Yard	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6
Office buildings	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Police station	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Power stations	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6
Prison	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Public hall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Pumping station	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Railroad shops	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Railroad stations	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Railroad yards	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12
Retail stores	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Restaurant	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Schoolhouses (public)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	207
Schoolhouses (parochial)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
Stock yards	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
Street boxes (public)*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	880
Theatres	.	.	.	.	.	.	.	.	.	.	.	.	.	.	28
Warehouses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	9
Wharves	.	.	.	.	.	.	.	.	.	.	.	.	.	.	9
Wholesale houses	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3

BOXES IN DISTRICTS.

District 1	.	.	70	99
District 2	.	.	68	95
District 3	.	.	33	115
District 4	.	.	88	93
District 5	.	.	53	108
District 6	.	.	90	95
District 7	.	.	86	77
District 8	.	.	96	
District 9	.	.		
District 10	.	.		
District 11	.	.		
District 12	.	.		
District 13	.	.		
District 14	.	.		
District 15	.	.		

Two boxes are located outside the city limits.

* About one hundred schoolhouse and private boxes are accessible to the public but are not counted as street boxes.

POSTS AND CABLE TEST BOXES.

Fire alarm box posts in service	503
Fire alarm box posts set, but not in service	10
Test posts in service (large size)	68
Test posts in service (small size)	13
Pole test boxes in service (underground connection)	213

CIRCUITS.

Box circuits	67
Tapper circuits	14
Gong circuits	13
Special signal circuits	3
Telephone circuits in department system	52
Telephone circuits to Beach Exchange	9
Telephone circuits to Back Bay Exchange	1
Telephone circuits to Police Headquarters	1
Telephone circuits to A. D. T. Company office	1
Telephone circuits to Edison Electric Illuminating Company	1
Telephone circuits to Boston Automatic Fire Alarm Company	1
Telephone connections to Protective Department	1

PUBLIC CLOCKS.

No extensive improvements were made on any of the tower clocks maintained by this department. Fifty reports of minor troubles were corrected by members of this force.

The Commercial Wharf clock, which has been maintained by the city for many years, has been eliminated from the list of tower clocks which are cared for by this department. The clock is not the property of the city.

WIRES, CABLES AND CONDUITS.

Line wire in service	228 miles.
Aerial cable in service	26 $\frac{1}{2}$ miles.
Conductors in same	154 miles.
Aerial cable conductors in service	105 miles.
Underground cable in service	167 miles.
Conductor in same	2,375 miles.
Underground conductors in service	1,269 miles.
Conduits owned by Fire Department	68,439 feet.
Ducts in Fire Department conduits	85,915 feet.
Ducts used by Fire Department in New England Telephone and Telegraph Company's system	603,178 feet.
Ducts used by Fire Department in Postal Telegraph Company's system	5,717 feet.

FIRE ALARM APPARATUS.

Tappers in service	153
Boston tappers in adjacent cities and towns	6
Tappers connected to adjacent city and town systems in Boston Fire Department stations	6
Gongs in service	111
Registers in service, excepting those in Fire Alarm Office	30
Relays in service, excepting those in Fire Alarm Office,	21
Telephones in department system	157

SUMMARY OF WORK DONE.

New line wire used	10 $\frac{1}{4}$ miles.
Old wire removed from poles	6 $\frac{1}{4}$ miles.
Aerial cable installed	6,610 feet.
Conductors in same	33,500 feet.
Aerial cable removed from service	4,040 feet.
Conductors in same	34,520 feet.
Underground cable installed in ducts of New England Telephone and Telegraph Company,	22,295 feet.
Conductors in same	268,909 feet.
Underground cable installed in Boston Fire De- partment ducts	3,381 feet.
Conductors in same	41,050 feet.
Total underground cable installed (new work).	26,726 feet.
Conductors in same	301,704 feet.
Cable used to replace defective cable	4,996 feet.
Conductors in same	86,730 feet.
Underground cable removed	2,534 feet.
Conductors in same	19,800 feet.
Conduits laid by this department	2,767 feet.
Ducts in same	2,870 feet.
Ducts abandoned	266 feet.
Manholes built	2
Handholes built	3
Fire alarm boxes installed by this department	17
Fire alarm boxes installed by Schoolhouse Department	1
Fire alarm boxes installed on private property,	14
Fire alarm boxes relocated	6
Fire alarm box posts set	15
Fire alarm box posts relocated	3
Fire alarm box posts reset or replaced by new	18
Fire alarm test posts set, small size	4
Fire alarm test posts relocated	1
Fire alarm pole test boxes installed	6

GEORGE L. FICKETT,
Superintendent.

BUREAU OF SUPPLIES AND REPAIRS.

FROM: THE BUREAU OF SUPPLIES AND REPAIRS.

To: THE FIRE COMMISSIONER.

SUBJECT: ANNUAL REPORT, 1922-1923.

I report the following is a summary of the activities of the Bureau of Supplies and Repairs.

We have connected with our bureau 104 employees comprising clerks, chauffeurs and mechanics representing such trades as are necessary for our requirements. These men keep records, deliver supplies, etc., and make repairs for the upkeep and maintenance of the following:

One hundred and eighty motor vehicles, viz.:

AMERICAN LAFRANCE.

27	pumping engines	.	.	.	.	.	In service.
4	pumping engines	.	.	.	.	.	In reserve.
17	hose cars	.	.	.	.	.	In service.
3	hose cars	.	.	.	.	.	In reserve.
3	high pressure hose cars	.	.	.	.	.	In service.
13	ladder trucks	.	.	.	.	.	"
1	instruction car	.	.	.	.	.	"

SEAGRAVE.

3	pumping engines	.	.	.	.	.	In service.
10	hose cars	.	.	.	.	.	"
2	hose cars	.	.	.	.	.	In reserve.
1	ladder truck	.	.	.	.	.	In service.

CHRISTIE TRACTORS.

13	attached to steam engines	.	.	.	.	.	In service.
4	attached to steam engines	.	.	.	.	.	In reserve.
8	attached to ladder trucks	.	.	.	.	.	In service.
6	attached to ladder trucks	.	.	.	.	.	In reserve.

MACK.

1	hose car	.	.	.	.	.	In service.
1	2-ton cable truck	.	.	.	.	.	"
1	1½-ton fuel truck	.	.	.	.	.	"
1	wrecking car	.	.	.	.	.	"

WHITE.

3 $\frac{3}{4}$ -ton commercial trucks	. . . . .	In service.
1 2-ton fuel truck	. . . . .	"

AMERICAN AND BRITISH TRACTORS.

3 attached to water towers	. . . . .	In service.
1 attached to water towers	. . . . .	In reserve.

BUICKS.

1 sedan, Commissioner's car	. . . . .	In service.
8 touring cars	. . . . .	"
1 touring car	. . . . .	In reserve.
20 roadsters	. . . . .	In service.
7 roadsters	. . . . .	In reserve.
1 fuel car	. . . . .	In service.

ROBINSON.

1 pumping engine (being dismantled for parts)	. . . . .	In reserve.
1 hose car	. . . . .	"
1 ladder truck	. . . . .	In service.

FORD.

4 runabouts, Fire Alarm	. . . . .	In service.
4 emergency cars, Motor squad	. . . . .	"
1 1-ton truck, Wire Division	. . . . .	"

MISCELLANEOUS.

1 Velie hose car	. . . . .	In service.
1 Knox hose car	. . . . .	"
1 Pierce Arrow, Rescue Company 1	. . . . .	"
2 self-propelled steam engines, one in service; one in reserve.		

One hundred and forty-seven horse-drawn vehicles,
viz.:

6 steam engines	. . . . .	In service.
12 steam engines	. . . . .	In reserve.
6 hose wagons	. . . . .	In service.
6 hose wagons	. . . . .	In reserve.
7 ladder trucks	. . . . .	In service.
4 ladder trucks	. . . . .	In reserve.
8 chemicals	. . . . .	"
34 hose punks.		
21 salt punks.		
14 salt wagons.		
29 coal wagons.		

FIREBOATS.

3 fireboats	In service.
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HIGH PRESSURE STATIONS.

2 high pressure pumping stations	In service.
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BUILDINGS.

Headquarters building.

Repair shop of Bureau.

Sixty-nine fire stations.

Coal station, Main street.

Veterinary hospital.

Fire alarm shop.

Garage, Harrison avenue and Wareham street.

Storehouse, Fourth street.

In addition to the foregoing we receive, distribute, repair, etc., all appliances, hose, uniforms and such other equipment required by our department.

MOTOR ACTIVITIES.

New motor vehicles received during the year

AMERICAN LAFRANCE.

Seven type 75, 750 gallons' capacity pumping engines.

Three type 75, combination chemical and hose cars.

NOTE.— This apparatus was submitted to the underwriters for inspection and test of pumps, and to our department officials for rigid road test, hill climbing and radious turning before acceptance.

BUICKS.

1 Sedan.	3 touring cars.	4 roadsters.
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NOTE.— These cars were inspected, tested and assigned as follows:

Sedan assigned to Commissioner.

Touring assigned to captain in charge of Bureau.

Touring assigned to Superintendent of Wire Division.

Touring assigned to Deputy Chief, Division 1.

Roadster assigned to District Chief, District 6.

Roadster assigned to District Chief, District 8.

Roadster assigned to Veterinary Surgeon.

Roadster assigned to Inspector of Wire Division.

MISCELLANEOUS.

Eighteen Ross thawing devices installed on motor pumping engines.

We now have twenty-nine of these devices in service in our department.

Fifty sets of single unit skid chain adapters placed on motor apparatus.

NOTE.— By the use of these adapters we eliminated to a great extent the breaking of drive chains, also the breaking and losing of old style skid chains, and creating a considerable saving to this department.

Twelve rectifiers for charging storage batteries on apparatus installed in various quarters outside city proper.

Fifteen Christie motors rebuilt.

New winch installed on wrecking car replacing one unfit for further service.

Choker attachments placed in all old type motor apparatus to facilitate easy starting.

Wind shields made and installed on all fire-fighting apparatus placed in service during the year.

Engines 1, 14, 18 and 45 made double unit companies.

Chemical Companies 11 and 13 converted to Engine Companies 52 and 53.

Ladder brackets placed on Pumping Engines 49, 51 and 53 and each company furnished with one 15-foot roof ladder and one 25-foot extention ladder.

Radius rod discs and brake supports replaced with late type on twelve pumping engines, two hose cars, one ladder truck.

Three thousand one hundred inspections of motor vehicles by the engineer of motor apparatus.

All apparatus repaired at the repair shop tried out by the auto tester before return to quarters.

Pumping engines used on several occasions to pump out cellars.

Three thousand and fifty-seven emergency calls responded to by the motor squad. These calls consisted of making minor repairs on apparatus in quarters, and on the street, towing disabled apparatus, responding to multiple alarms of fire, etc.

REPAIRS ON MOTOR APPARATUS — SHOP MECHANICS.

Number of jobs	4,129
Cost	\$53,681

REPAIRS ON MOTOR APPARATUS — OUTSIDE CONCERNS.

Number of jobs	910
Cost	\$12,550

SCHOOLS.

Chauffeur School.

This school was in operation from May to October, and during this period 186 officers and men received instructions in the care, mechanism and operation of motor vehicles. After the course of instructions at the school these men were examined by the Engineer of Motor Apparatus for certification as operators.

Those not already holding state licenses received examination by the State Registry of Motor Vehicle Examiners.

Motor Pump School.

The Motor Pump School began operations in May and continued to the latter part of October. During this time 112 men received instructions in the care and operation of motor pumping engines. As each class completed its course of instructions, the men attending were examined by the Engineer of Motor Apparatus to determine their fitness for certification as motor pump operators.

Steam Engineer School.

One class of 7 men attended this school during the past year. These men received thorough instructions in the care, mechanism and operations of steam fire engines.

In addition at this school several members of the department received instructions in the operation of the various type hydrants used by the department.

MOTORLESS VEHICLES.

Repairs of all kinds were made on our horse-drawn vehicles at the Bureau shop, and a few jobs were given to outside firms on account of not having proper facilities at the shop to do the work.

Repairs at Bureau shop	319
Cost	\$3,940
Repairs by outside firms	15
Cost	\$123

Thirteen discarded horse-drawn hose wagons were converted into pungs, at \$210.

By placing the bodies of these wagons on runners it provided practical fire-fighting units for emergency during winter seasons. These wagons were previously sold off at a relatively low price.

MARINE SERVICE.

Fireboats inspected and over hauled to conform with the United States Marine Laws.

Repairs by outside firms	18
Cost	\$6,028

Submarine chaser loaned by United States Navy was returned.

HIGH PRESSURE.

To conform with the State Laws three civilian engineers were assigned to High Pressure Station No. 1.

Eight gate wrenches for emergency in case of break in high pressure mains were received from the Public Works Department and distributed to Engine Companies 4, 6, 7, 8, 15, 25, 26 and 39.

Piezometer gauges were distributed to the following companies during the year: Engines 3, 9, 12, 13, 14, 15, 17, 21, 23, 24, 27, 31, 33, 36, 38, 43, 44 and 47.

DEPARTMENT BUILDINGS.

The greater part of the repair work necessary for the upkeep of department buildings was performed by our outside mechanics (namely) plumbers, painters, steam-fitters, carpenters, tinsmiths and masons.

Number of repairs	1,389
Cost	\$37,469

Several repairs were made by the members of companies, stock furnished by the department.

Cost of stock	\$715
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Some major repairs and other work was performed by outside concerns, vis., thoroughly overhauling and bracing fire escape on Headquarters Building, paving Drill School yard, roofs, roof garden awnings, window awnings, etc.

Number of jobs	60
Cost	\$6,785

FURNITURE.

Several pieces of furniture were repaired at the Bureau shop including chairs, tables, desks, chiffoniers, etc.

Number of repairs	70
Cost	\$315

Some repairs were made in quarters by members of the department, stock furnished.

Cost of stock supplied	\$78
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FURNISHINGS.

The following articles were purchased and distributed during the year.

27 rugs.	100 blankets.
90 dozen pillow slips.	7 dozen hand towels.
500 roller towels.	37 bedsteads.
177 chairs.	4 desks.
4 tables.	5 chiffoniers.
115 dozen sheets.	

Several articles were repaired and supplied by outside firms, viz., pool tables, mattresses, pillows, curtains, etc.

Cost of repairs and furnishings	\$4,239
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BUREAU REPAIR SHOP.

Three employees were added to personnel, 2 painters, 1 laborer.

Battery testing instrument board installed.

Battery load testing instrument installed.

Turn auto machine installed. This machine facilitates turning small motor vehicles in desired positions for inspection and repairs.

Battery and magneto room was segregated.

Pressure pump for testing hose repaired.

No. 1 generator engine given thorough overhauling.

HOSE.

<i>Purchased.</i>	<i>Feet.</i>	<i>Condemned.</i>	<i>Feet.</i>
Leading cotton hose . . .	16,500	Leading cotton hose . . .	11,450
Chemical hose . . .	500	Leading rubber hose . . .	950
Rubber deck hose . . .	50	Chemical hose . . .	800
Total . . .	<u>17,050</u>	3-inch flexible suction hose . . .	150
		4-inch rubber suction hose . . .	50
		Deluge hose . . .	25
		Total . . .	<u>13,425</u>

Amount of hose in use and in stock February 1, 1923.

<i>In Use.</i>	<i>Feet.</i>	<i>In Stock.</i>	<i>Feet.</i>
Leading cotton hose . . .	130,416	Leading cotton hose . . .	9,700
Leading rubber hose . . .	900	Chemical hose . . .	350
Chemical hose . . .	19,200	3-inch flexible suction hose, . . .	50
Deck hose . . .	900	4-inch rubber suction hose, . . .	204
3-inch flexible suction hose, . . .	625	2½-inch rubber suction hose, . . .	40
4-inch rubber suction hose, . . .	1,218	Total . . .	<u>10,344</u>
3½-inch deluge hose . . .	675		
Total . . .	<u>153,934</u>		

CLOTHING.

810 pairs of trousers received and distributed.

202 pairs of trousers repaired.

31 pairs of trousers reissued.

316 sack coats received and distributed.

54 sack coats repaired.

30 sack coats reissued.

203 overcoats received and distributed.

26 overcoats repaired.

3 overcoats reissued.

154 rubber coats received and distributed.

37 rubber coats repaired.

24 rubber coats reissued.

271 caps received, and distributed.

13 caps reissued.

100 fire hats received and distributed.

332 fire hats repaired.

Nine hundred and one overcoats cleansed, pressed, repaired and placed in storage during the summer.

CONCLUSION.

Due to the increased amount of repair work by the Bureau our repair shop has become very much inade-

quate for our needs, and I would urge that provisions be made for erection of a larger building.

Several of our gasoline storage tanks are too small for our requirements, and as all these tanks are now considered gasoline stations for the entire department particularly on multiple alarms, I would recommend that they be replaced by tanks of 500 gallon capacity.

Consideration should be given to the installing of motor fuel wagons in Districts 1 and 2.

Respectfully submitted,

WILLIAM H. McCORKLE,
District Chief.

REPORT OF MEDICAL EXAMINER.

BOSTON, February 1, 1923.

FROM: THE MEDICAL EXAMINER.
TO: THE FIRE COMMISSIONER.
SUBJECT: ANNUAL REPORT.

I respectfully submit the following report for the year ending January 31, 1923:

Number of cases of illness	569
Number of cases of injury	1,334
Number injured but remained on duty	988

EXAMINATIONS.

Inspections at office headquarters recorded	1,272
For appointment as provisional fireman (civil service)	19
For appointment of men on probation	11
For reinstatement	2
At engine houses of firemen, pulmotors and medicine chests, and visits at homes of firemen and at hospitals	350

The past winter having been very severe, with limited supply of coal, rendering fire duty extra hazardous and unusual suffering from cold, in my opinion, accounts for the increase in number of sick and injured over the previous year.

It has been my good fortune to be granted permission by our commissioner and his Honor the Mayor to become a member and attend the first meeting of the "National Association of Police and Fire Surgeons and Medical Directors of Civil Service Commissions" organized at Philadelphia, November 20, 1922. At the annual meeting, the reading of papers, the interchange of thought relative to improvement in medical routine in connection with department work has been a great help for efficient medical service. Universal standardization of physical and mental requirements for appointment to the police and fire service is to be worked out in the future. The officers and men have many times during the past year given "first aid" service to citizens

as well as firemen, thus rendering an efficient and praiseworthy public service. It is commendable and noteworthy, showing the faithful spirit of officers and men, that out of 1,334 cases of injury on file, 988 men remained on duty and had their injuries treated in quarters.

DEATHS.

John J. Connorton, February 16, 1922, Engine Company 22, cerebral hemorrhage.

William J. Hennessey, March 14, 1922, Engine Company 2, lobar pneumonia.

Christopher J. Melia, April 15, 1922, Engine Company 53, tubercular meningitis following pulmonary tuberculosis.

Daniel J. Quinn, April 30, 1922, Headquarters, pernicious anæmia.

Lawrence H. Donahue, September 9, 1922, Ladder 10, sarcoma.

William C. Swan, September 28, 1922, Ladder 15, shock following crushing of leg.

Patrick J. Norton, October 14, 1922, Engine Company 18, cancer of rectum.

Alexander F. Smith, December 10, 1922, Engine Company 36, chronic nephritis.

Respectfully submitted,

WILLIAM J. McNALLY, M. D.,
Medical Examiner.

REPORT OF WIRE DIVISION.

BOSTON, February 1, 1923.

FROM: SUPERINTENDENT, WIRE DIVISION.
TO: THE FIRE COMMISSIONER.
SUBJECT: ANNUAL REPORT.

I herewith submit annual report of the Wire Division of the Fire Department for the year 1922-23.

The underground district for 1923 has been prescribed and advertised in accordance with the law and is as follows:

BRIGHTON.

Washington street, from Cambridge street to Commonwealth avenue.

CHARLESTOWN.

Alford street, from Main street to the drawbridge; Medford street, from Chelsea street to Cook street.

DORCHESTER.

Alban street, from Welles avenue to Ashmont street; Talbot avenue, from Washington street to Bernard street; Quincy street, from Columbia road to Blue Hill avenue; Adams street, from King square to Minot street; Washington street, from Ashmont street, a distance of 1,970 feet to a point within 530 feet of Codman street.

SOUTH BOSTON.

Macallen street, from Dorchester avenue to Foundry street, making a total distance of four miles as provided by law.

The following data gives the details of the work done by this division:

During the year there were forty-nine fires and one manhole explosion due to electrical causes. The total loss for forty-seven fires (two fire losses not being adjusted) was \$24,803.50; three fires causing a loss of \$17,808.04, leaving \$7,995.46 for the balance. These fires, etc., have received the attention of this division.

All electrical construction which comes under the supervision of this division has been duly inspected.

No violation of the law relating to electrical construction has necessitated court action during the year.

The total income for the year was \$55,843.63, which is the largest amount ever received for a like period.

While more attention has been given to inspection of old work than for a number of years, it is our intention to increase the amount of inspection of this kind of work, provided the pressure of new work will not prevent.

The work of the division shows a marked increase over previous years. There was a larger amount of underground construction, while the work of installing interior wiring and electrical apparatus shows a material increase.

The number of permits issued for interior wiring was 17,378.

The public service corporations and electrical contractors and others have assisted us by their co-operation.

It is a pleasure to report that during the year there have been no fires due to wiring or apparatus approved by this division.

EXTERIOR DIVISION.

The underground district for the year 1922, as prescribed under authority of chapter 196 of the Acts of 1921, comprised the following streets:

BRIGHTON.

Washington street, from Commonwealth avenue to Corey road.
Corey road, from Washington street to the Brookline line.
Wallingford road, from Chestnut Hill avenue to Commonwealth avenue.

EAST BOSTON.

Border street, from the North Ferry to Condor street.
Sumner street, from Maverick square to Border street.

ROXBURY.

Zeigler street, from Warren street to Dearborn street.

DORCHESTER.

Dorchester avenue, from Peabody square to Pierce square.
Fuller street, from Dorchester avenue to Washington street.
West Cottage street, from Dudley street to Blue Hill avenue.

BACK BAY.

Brookline avenue, from Commonwealth avenue a distance of 1,890 feet to a point 150 feet south of the south line of Fullerton street.

Making a total distance of 4 miles as provided by law.

In these prescribed streets from which poles and overhead wires were to be removed, there were standing on February 1, 1922, a total of two hundred fourteen (214) poles (not including the trolley poles of the Boston Elevated Railway Company, which are exempt) owned by the Edison Electric Illuminating Company, New England Telephone and Telegraph Company and Postal Telegraph Cable Company, supporting a total of one million (1,000,000) feet of overhead wires, or a little more than one hundred eighty-nine (189) miles owned by the Edison Electric Illuminating Company, New England Telephone and Telegraph Company, Boston Elevated Railway Company, Postal Telegraph Cable Company, Western Union Telegraph Company, American District Telegraph Company, Boston Fire Department (Fire Alarm Branch) and Boston Police Department (Police Signal Service).

In the selection of new pole locations our engineers have accompanied the engineers of the various companies for the purpose of passing on such locations. All carrying poles standing in the streets are stencilled by this department for purposes of identification, and are plotted in atlases on file in our office. All carrying poles standing in the streets are inspected and tested yearly by the inspectors of this division and at the same time a general inspection is made of all overhead construction. This work is in addition to the regular inspection work necessary on account of new construction. Poles found to be leaning or in process of decay are reported to the companies owning same and where conditions warrant it, poles are condemned. During the past year the inspectors of this division reported one hundred forty-four (144) poles decayed at base and fifty-three (53) poles leaning, or a total of one hundred ninety-seven (197) poles which were replaced by new poles or reset by the various companies at the request of this department. Forty-eight (48) abandoned poles were reported by our inspectors and were removed by the various companies at our request.

The following table shows the overhead for the year from February 1, 1922, to January 31, 1923, inclusive:

Number of new poles set in new locations	744
Number of poles replaced, reset or straightened	449
Number of poles removed	492
Number of poles now standing in the public streets,	15,872
Number of defects reported	3,673

Number of defects corrected	3,452
(Other defects in process of correction.)	
Number of notices of overhead construction	23,966
Number of overhead inspections	41,909
Number of overhead reports	23,059
Amount of overhead wires removed by owners (in feet)	2,053,358

UNDERGROUND CONSTRUCTION.

The ducts used this year for the underground conduits of the drawing-in system are of the following type:

1. Vitrified clay (laid in concrete).
2. Fiber (laid in concrete).
3. Iron.
4. Wood.

In side or residential streets a considerable amount of special underground construction for electric light and power purposes of a type known as the "Split Fiber Solid System" has been installed during the year.

The electrical approvals for underground electrical construction numbered three thousand five hundred forty-nine (3,549).

Number of inspections of underground electrical construction, nine thousand four hundred sixty-six (9,466).

Number of reports of underground electrical construction, three thousand one hundred eighty-nine (3,189).

Character of Cable Used by the Various Companies.

COMPANY.	KIND OF INSULATION.	SIZE.
Boston Elevated Railway Company	Rubber.....	500,000, 1,000,000 and 2,000,000 C. M.
Charlestown Gas and Electric Company.	Varnished cambric, rubber and paper.	Nos. 2, 4, 6 and 1-0.
Edison Electric Illuminating Company.	Rubber and paper . . .	Nos. 8 to 1,000,000 C. M.
Fire Alarm Branch (B. F. D.)	Rubber.....	4, 6, 10, 19, 37 and 61 conductor.
New England Telephone and Telegraph Company.	Paper, silk and cotton.	2 to 1,212 pair.
Police Signal Service (B. P. D.)	Rubber.....	7 conductor.
Postal Telegraph Cable Company,	Rubber.....	2 conductor.
Schoolhouse Commission (City of Boston),	Rubber.....	4 conductor.
Western Union Telegraph Company.	Rubber and paper . . .	10 to 125 pair.

Table Showing Underground Work for the Year 1922.

COMPANY.	Feet of Conduit.	Feet of Duct.	Feet of Cable.	Number of Manholes.	Number of Services.
Boston Elevated Railway Company,	8,129	68,342	17,754	25	12
Boston Low Tension Wire Association.	.....	515	.....	.....	8
Charlestown Gas and Electric Company.	715	1,640	38,970	.....	4
Edison Electric Illuminating Company.	91,185	495,173	1,144,077	254	1,605
Fire Alarm Branch (B. F. D.).....	1,450	3,823	27,051	4	23
New England Telephone and Telegraph Company.	24,091	154,528	263,889	67	180
Police Signal Service (B. P. D.).....	.....	558	1,650	.....	8
Postal Telegraph Cable Company.....	.....	265	3,000	.....	2
Schoolhouse Commission (City of Boston).	.....	98	1,160	.....	2
Western Union Telegraph Company,	6,944	21,059	14,778	18	9
Totals.....	132,514	746,001	1,512,329	368	1,853

NOTE.—“Split Fiber Solid Main System” of the Edison Electric Illuminating Company is included in the above figures comprising 23,172 feet of conduit and 45,606 feet of duct. No additions made to the old three-wire solid tube system.

Table Showing the Amount and Distribution of Boston's Electrical Power January 31, 1923.

COMPANY.	Total Rated Horse Power of Boilers.	Total Rated Horse Power of Engines.	Capacity of Incandescent Lamps in Kilowatts.	Capacity of Arc Lamps in Kilowatts.	Kilowatts of Motors.	Kilowatts, Mixed Loads.	Number of Stations.
Boston Elevated Railway Company....	43,772	207,970	3,476	5	347,630	78,775	17
Edison Electric Illuminating Company,.	48,592	275,400	101,638	2,946	91,741	73,712	45
Charlestown Gas and Electric Company,.....	.....	.....	*	163	7,159	*	1
Block Plant Electric Company.....	400	325	215	.....	40	260	1
Quaker Building Company.....	620	400	125	.....	106	.....	1
Sudbury Building Plant.....	200	150	25	.....	25	.....	1
Hanover Street Trust.....	500	363	209	33	153	395	1
Totals.....	94,084	484,608	105,688	3,147	446,854	153,142	67

* Unknown.

INTERIOR DIVISION.

As provided by law, there have been eleven hundred thirty-seven (1,137) inspections made of theaters, places of amusement and public halls. Where defects are found the parties interested are notified. When not corrected within a reasonable time the company supplying current is notified to discontinue same.

Forty-nine fires and five accidents to persons (two of which were fatal) have been investigated as per the following table:

Fires in interior of buildings	36
Fires on poles	1
Manhole explosions	1
Miscellaneous, exterior	13
Injuries to persons	5
Notices of new work received	17,378
Number of permits to turn on current	12,912
Number of incandescents inspected	1,528,939
Number of motors inspected	11,407
Number of buildings in which wiring was completely examined	1,404
Number of inspections made	38,683

Defective work reported by the inspectors of the Interior Division has been corrected or is in process of correction.

LIST OF WIRE DIVISION EMPLOYEES,
JANUARY 31, 1923.

		Salary Per Annum.
1	Superintendent	\$3,000
1	Chief Inspector	2,500
3	Inspectors	2,000
8	Inspectors	1,900
8	Inspectors	1,800
6	Inspectors	1,700
4	Inspectors	1,600
2	Inspectors	1,500
1	Inspector	1,400
1	Engineer	2,000
1	Chief Clerk	2,000
1	Assistant Chief Clerk	1,900
1	Clerk and Stenographer	1,600
1	Clerk	1,240
1	Clerk	1,400
3	Stenographers	1,300
1	Chauffeur	1,400
1	Stenciller	1,400

STATEMENT OF APPROPRIATION AND EXPENDITURES OF THE WIRE DIVISION FROM FEBRUARY 1, 1922, TO JANUARY 31, 1923, INCLUSIVE.

Appropriation	<u>\$88,827 36</u>
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EXPENDITURES.

A-1. Employees	\$76,000 42
F-7. Pension roll	612 50
B-1. Printing and binding	17 70
B-2. Postage	200 00
B-3. Advertising	107 40
B-4. Car fares	2,487 66
B-12. Premium on bond	6 00
B-13. Telephones	347 04
B-35. Fees	2 00
B-37. Photo, etc.	2 15
B-39. Repairs, etc.	27 40
C-3. Electrical instruments	114 32
C-4. Autos, etc.	3,304 25
C-13. Tools, etc.	28 30
D-1. Office forms, etc.	1,865 65
D-11. Gasolene, etc.	344 75
D-16. Photo material	1 85
E-10. Batteries, etc.	10 08
E-13. Parts for auto, and paint	50 80

Total expenditures	\$85,537 27
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Balance in treasury	3,290 09
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<u>\$88,827 36</u>

LIST OF PROPERTY.—WIRE DIVISION.

- 1 1,500-volt Weston Direct Current Voltmeter.
- 5 300-volt Weston Direct Current Voltmeters.
- 2 300-volt Weston Alternating Current and Direct Current Voltmeters.
- 1 15-volt Weston Direct Current Voltmeter.
- 2 300-volt Weston Direct Current Double Reading Voltmeter.
- 1 120-volt Weston Direct Current Miniature Type Voltmeter.
- 1 150-volt Weston Direct Current Miniature Type Voltmeter.
- 1 500-volt Weston Direct Current Ammeter.
- 1 200-volt Weston Alternating Current Ammeter.
- 1 50-volt Weston Direct Current Ammeter.
- 1 15-volt Weston Alternating Current Ammeter.
- 1 1,500-volt Milampères Weston Direct Current Mil-ammeter.
- 6 Bichloride of silver batteries, each 60 cells.
- 1 Queen testing set.
- 1 Touring car.
- 1 Runabout.
- 1 Ford truck.
- 2 Robes.
- 1 Blanket.
- 2 Cameras, complete.
- Miscellaneous tools used in connection with overhead construction
- Draughting instruments.

Respectfully,

WALTER J. BURKE,
Superintendent, Wire Division.

THE DEPARTMENT ORGANIZATION.

Commissioner, THEODORE A. GLYNN.

Chief Clerk, BENJAMIN F. UNDERHILL.

Chief of Department, JOHN O. TABER.

Captain, WILLIAM H. McCORKLE, in charge of Bureau of Supplies and Repairs.

Superintendent of Engines and Boilers, EUGENE M. BYINGTON.

Superintendent of Fire Alarms, GEORGE L. FICKETT.

Superintendent of Wire Division, WALTER J. BURKE.

Chief Operator and Assistant Superintendent of Fire Alarms, RICHARD DONAHUE.

Chief Clerk, Wire Division, FRANK H. RICE.

Medical Examiner, WILLIAM J. McNALLY.

CLERKS.

Fire Department.

James P. Maloney, Assistant Chief Clerk and Supervisor of Pay Accounts; Edward L. Tierney, Chief of License Division—Bureau of Fire Prevention; George F. Murphy, Herbert J. Hickey, John J. Coholan, William J. Hurley, Nathan Cohen, Frank M. Fogarty, Thomas J. Murphy, William J. O'Donnell, Thomas W. O'Connell, Warren F. Fenlon.

Wire Division.

William McSweeney, Charles S. Carroll, Martin P. Cummings, Selina A. O'Brien, Mary E. Fleming, May D. Marsh.

HEADQUARTERS.

	Per Annum.
1 Commissioner	\$7,500
1 Chief clerk	2,500
1 Assistant chief clerk and supervisor pay accounts,	2,500
1 Medical examiner	2,100
1 Secretary and stenographer	2,000
1 Clerk	2,300
1 Clerk	1,500
1 Clerk	1,300
1 Clerk	1,000
1 Assistant engineer (messenger)*	1,800
2 Hosemen (clerks)*	1,800

Per Week.

1 Janitress	20 00
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FIRE PREVENTION BUREAU.

Per Annum.

1 Chief Fire Prevention	\$2,500
1 Clerk	1,700
1 Clerk	.	.	.	.	1,300
1 Clerk	.	.	.	.	1,000
1 Constable	.	.	.	.	1,400

5

FIRE-FIGHTING BRANCH.

Per Annum.

1 Chief of Department	.	.	.	.	\$5,000
4 Deputy chiefs	.	.	.	.	4,000
15 District chiefs	.	.	.	.	3,500
63 Captains	.	.	.	.	2,500
98 Lieutenants	.	.	.	.	2,300
1 Aide-to-Chief (lieutenant)	.	.	.	.	2,300
1 Aide-to-Commissioner (private)	.	.	.	.	1,800
3 Engineers (marine)	.	.	.	.	2,000
47 Engineers	.	.	.	.	1,900
47 Assistant Engineers	.	.	.	.	1,800
2 Assistant engineers	.	.	.	.	1,600
894 Privates:					
764	.	.	.	.	\$1,800
44	.	.	.	.	\$1,700-\$1,800
26	.	.	.	.	\$1,600-\$1,700
43	.	.	.	.	\$1,500-\$1,600
17	.	.	.	.	\$1,400-\$1,500

1,176

BUREAU SUPPLIES AND REPAIRS.

Per Annum.

1 Captain in charge	.	.	.	\$2,500
1 Superintendent, engines and boilers	.	.	.	3,500
1 Supervisor, motor apparatus	.	.	.	2,700
1 Shop foreman	.	.	.	2,000
1 Lieutenant, foreman hose and harness shop	.	.	.	2,300
1 Auto engineer (engineer)	.	.	.	2,200
1 Engineer and Architect	.	.	.	2,200
1 Storekeeper (hoseman)	.	.	.	2,000
1 Master plumber (engineer)	.	.	.	1,900
1 Master carpenter (hoseman)	.	.	.	1,800
1 Master Painter	.	.	.	1,800
1 Foreman auto mechanic	.	.	.	1,800
1 Machinist (engineer)	.	.	.	1,900
13 Privates	.	.	.	1,800
1 Private	.	.	.	1,700
1 Clerk in charge	.	.	.	1,900
1 Clerk in charge	.	.	.	1,300
1 Clerk in charge (hoseman)	.	.	.	1,800
7 Engineers	.	.	.	1,900
7 Engineers (High Pressure Service)	.	.	.	1,900
3 Assistant engineers (High Pressure Service)	.	.	.	1,800

		Per Day.
3	High Pressure engineers	\$7 00
3	Firemen	5 50
		Per Week.
1	Engineer	\$40 00
		Per Day.
2	Plumbers	\$5 40
1	Steamfitter	5 00
1	Leading painter	5 25
9	Painters	5 00
2	Wheelwrights	5 00
1	Leading machinist	5 00
4	Machinists	5 00
7	Auto repairers	5 00
2	Battery and ignition men	5 00
1	Auto repairer and tester	5 00
1	Auto mechanic and machinist	5 00
1	Auto blacksmith	5 00
1	Leading blacksmith	5 25
4	Blacksmiths	5 00
5	Blacksmith's helpers	4 25
3	Carpenters	5 00
2	Hose and harness repairers	5 00
1	Hose and harness repairer	4 50
1	Boiler repairer, ironworker and steamfitter	5 00
1	Vulcanizer	4 50
1	Chauffeur	4 50
2	Teamsters	4 00
2	Laborerst.	4 00

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FIRE ALARM BRANCH.

		Per Annum.
1	Superintendent	\$3,500
1	Assistant superintendent and chief operator	3,000
1	Supervising operator	2,300
3	Principal operators	2,300
3	Operators	2,200
5	Assistant operators	1,800
1	Assistant operator	1,400
1	Temporary assistant operator	1,400

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CONSTRUCTION FORCE.

		Per Annum.
1	Foreman	\$2,700
1	Assistant foreman	2,200
1	Stockman	1,800

FIRE DEPARTMENT.

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	Per Day.
1 Machinist	\$5 25
2 Machinists	5 00
19 Cable splicers and wiremen, linemen and repairers,	5 45
1 Laborer	4 00

26

VETERINARY HOSPITAL BRANCH.

Per Day.	
3 Hostlers (average)	\$4 00

CHIEF OF DEPARTMENT.

JOHN O. TABER.

Headquarters, Engine House 26-35, Mason Street.

The Chief is in charge of the fire protection of the city, which is divided into three divisions, each commanded by a deputy chief, which are subdivided into fifteen districts, each commanded by a district chief.

DIVISION 1.

Deputy Chief, EDWARD J. SHALLOW.

Headquarters, Ladder House 8, Fort Hill Square.
This division comprises Districts 1, 2, 3, 4, 5.

*District 1.**District Chief, HENRY J. POWER.*

Headquarters, Ladder House 2, Paris Street,
East Boston.

Apparatus Located in the District.—Engines 5, 9, 11,
31 (fireboat), 40, 47 (fireboat), Ladders 2, 21, Chemical 7.

*District 2.**District Chief, JOHN P. MURRAY.*

Headquarters, Engine House 50, Winthrop Street,
Charlestown.

Apparatus Located in the District.—Engines 27, 32, 36,
50, Ladders 9, 22.

*District 3.**District Chief, CORNELIUS J. O'BRIEN.*

Headquarters, Ladder House 18, Pittsburgh Street.

Apparatus Located in the District.—Engines 25, 38,
39, 44 (fireboat), Ladders 8, 18, Water Tower 3.

*District 4.**District Chief, CHARLES A. DONOHUE.*

Headquarters, Engine House, 4 Bulfinch Street.

Apparatus Located in the District.—Engines 4, 6, 8,
Ladders 1, 24, Water Tower 1.

*District 5.**District Chief, ALBERT J. CAULFIELD.*

Headquarters, Engine House 26-35, Mason Street.

*Apparatus Located in the District.— Engines 7, 10, 26, 35, Ladder 17, Rescue 1.***DIVISION 2.***Deputy Chief, HENRY A. FOX.*

Headquarters, Engine House 22, Warren Avenue.

This division comprises Districts 6, 7, 8, 11.

*District 6.**District Chief, JAMES J. CAINE.*

Headquarters, Engine House 1, Dorchester Street, South Boston.

*Apparatus Located in the District.— Engines 1, 2, 15, 43, Ladders 5, 19, 20.**District 7.**District Chief, FRANK A. SWEENEY.*

Headquarters, Engine House 22, Warren Avenue.

*Apparatus Located in the District.— Engines 3, 22, 33, Ladders 3, 13, 15, Water Tower 2.**District 8.**District Chief, FRANK J. SHEERAN.*

Headquarters, Ladder House 12, Tremont Street.

*Apparatus Located in the District.— Engines 13, 14, 37, Ladders 12, 26.**District 11.**District Chief, JAMES F. McMAHON.*

Headquarters, Engine House 41, Harvard Avenue, Brighton.

*Apparatus Located in the District.— Engines 29, 34, 41, 51, Ladders 11, 14.***DIVISION 3.***Deputy Chief, WALTER M. MCLEAN.*

Headquarters, Ladder House 23, Washington Street, Grove Hall.

This division comprises Districts 9, 10, 12, 13, 14, 15.

*District 9.**District Chief, JOSEPH H. KENNEY.*

Headquarters, Engine House 12, Dudley Street.

*Apparatus Located in the District.— Engines 12, 21, 23, 24, Ladder 4.**District 10.**District Chief, FRANCIS J. JORDAN.*

Headquarters, Engine House 18, Harvard Street, Dorchester.

*Apparatus Located in the District.— Engines 17, 18, 52, Ladders 7, 29.**District 12.**District Chief, JOHN N. LALLY.*

Headquarters, Engine House 28, Centre Street, Jamaica Plain.

*Apparatus Located in the District.— Engines 28, 42, Ladders 10, 23, 30.**District 13.**District Chief, MICHAEL J. KENNEDY.*

Headquarters, Engine House 45, Corner Washington and Poplar Streets, Roslindale.

*Apparatus Located in the District.— Engines 30, 45, 53, Ladders 16, 25.**District 14.**District Chief, ALLAN J. MACDONALD.*

Headquarters, Engine House 46, Peabody Square, Dorchester.

*Apparatus Located in the District.— Engines 16, 20, 46, Ladders 6, 27.**District 15.**District Chief, JOSEPH A. DOLAN.*

Headquarters, Engine House 48, Corner Harvard Avenue and Winthrop Street, Hyde Park.

Apparatus Located in the District.— Engines 19, 48, 49, Ladder 28.

FIRE STATIONS.

LOCATION.

LOCATION.	Number of Feet in Lot.	Occupied by
Dorchester and Fourth streets.....	8,167	Engine 1 and Ladder 5.
Corner of O and Fourth streets.....	4,000	Engine 2.
Bristol street and Harrison avenue.....	4,000	Engine 3 and Ladder 3.
Bulfinch street.....	6,098	Engine 4, Chemical 1 and Tower 1.
Marion street, East Boston.....	3,265	Engine 5.
Leverett street.....	2,269	Engine 6.
East street.....	1,893	Engine 7.
Salem street.....	2,568	Engine 8.
Paris street, East Boston.....	4,720	Engine 9 and Ladder 2.
River street.....	1,886	Engine 10.
Saratoga and Byron streets, East Boston,	10,000	Engine 11 and Ladder 21.
Dudley street.....	7,320	Engine 12.
Cabot street.....	4,832	Engine 13.
Centre street.....	5,713	Engine 14.
Dorchester avenue.....	2,803	Engine 15.
Corner River and Temple streets.....	12,736	Engine 16 and Ladder 6.
Meeting House Hill, Dorchester.....	9,450	Engine 17 and Ladder 7.
Harvard street, Dorchester.....	9,440	Engine 18.
Babson street, Dorchester.....	7,683	Engine 19.
Walnut street, Dorchester.....	9,000	Engine 20 and Ladder 27.
Columbia road, Dorchester.....	10,341	Engine 21.
Warren avenue.....	7,500	Engine 22 and Ladder 13.
Northampton street.....	3,445	Engine 23.
Corner Warren and Quincy streets.....	4,186	Engine 24.
Fort Hill square.....	4,175	Engine 25 and Ladder 8, Rescue 1.
Mason street.....	5,623	Engines 26 and 35.
Elm street, Charlestown.....	2,600	Engine 27.
Centre street, Jamaica Plain.....	10,377	Engine 28 and Ladder 10.
Chestnut Hill avenue, Brighton.....	14,358	Engine 29 and Ladder 11.
Centre street, West Roxbury.....	12,251	Engine 30 and Ladder 25.
521 Commercial street, on land of Public Works Department.		

Fire Stations.—Concluded.

LOCATION.	Number of Feet in Lot.	Occupied by
Bunker Hill street, Charlestown.....	8,188	Engine 32.
Corner Boylston and Hereford streets....	5,646	Engine 33 and Ladder 15.
Western avenue, Brighton.....	4,637	Engine 34.
Monument street, Charlestown.....	5,668	Engine 36 and Ladder 22.
Corner Longwood and Brookline avenues,	5,231	Engine 37 and Ladder 26.
Congress street.....	4,000	Engines 38 and 39.
Sumner street, East Boston.....	4,010	Engine 40.
Harvard avenue, near Cambridge street, Brighton.	6,112	Engine 41 and Ladder 14.
Washington street, at Egleston square....	3,848	Engine 42 and Ladder 30.
Andrew square.....	5,133	Engine 43 and Ladder 20.
Northern Avenue Bridge.....		Engine 44, fireboat.
Washington and Poplar streets, Roslindale.	14,729	Engine 45 and Ladder 16.
Dorchester avenue, Ashmont.....	4,875	Engine 46.
Adjoining South Ferry, East Boston.....	11,950	Engine 47, fireboat.
Harvard avenue and Winthrop street, Hyde Park.	9,450	Engine 48 and Ladder 28.
Church street.....	3,412	
Milton and Hamilton streets.....	14,475	Engine 49.
Winthrop and Soley streets.....	5,230	Engine 50.
Oak square, Brighton.....	9,889	Engine 51.
Saratoga street, East Boston.....	9,300	Chemical Engine 7.
Corner Callender and Lyford streets....	7,200	Chemical 11 and Ladder 29.
Corner Walk Hill and Wenham streets...	11,253	Chemical 13.
Friend street.....	1,676	Ladder 1.
Dudley street.....	3,923	Ladder 4 and Chemical 10.
Main street, Charlestown.....	4,290	Ladder 9.
Tremont street.....	4,311	Ladder 12.
Harrison avenue.....	2,134	Ladder 17.
Pittsburgh street, South Boston.....	8,964	Ladder 18 and Tower 3.
Fourth street.....	3,101	Ladder 19.
Washington street, Dorchester.....	6,875	Ladder 23 and Chemical 5.
North Grove street.....	3,918	Ladder 24.

Headquarters Building, Bristol street, 15,679 feet of land.

Water Tower No. 2 is in Headquarters Building.

OTHER BUILDINGS.

Bureau S. & R. 363 Albany street, 8,000 feet of land.

Veterinary Hospital, Atkinson street, 64,442 feet of land.

Coal station, Main street, Charlestown, 2,430 feet of land.

Building No. 11 Wareham street, used by the Fire Alarm Branch as workshop and storeroom, 8,500 feet of land.

Building No. 618 Harrison avenue, used as a department garage and repair shop and a school for chauffeurs and officers, 3,816 feet of land.

CANNEL COAL STATIONS.

DIVISION 1.

DISTRICT.	Location.	Capacity. (Tons.)	Wagon.
1.....	Engine 11.....	12	1
1.....	Engine 40.....	20	2
2.....	Engine 36.....	35	1
2.....	Ladder 9.....	35	2
3.....	Ladder 18.....	10	
3.....	Engine 38-39.....	10	*1
4.....	Ladder 24.....	16	2
5.....	Rescue 1.....	35	*1
Total.....			10

* Motor.

DIVISION 2.

6.....	Engine 2.....	20	1
6.....	Fourth street.....	40	
7.....	Engine 33.....	25	1
8.....	Engine 13.....	40	1
8.....	Engine 14.....	10	1
8.....	Engine 37.....	20	1
11.....	Engine 29.....	7	1
11.....	Engine 34.....	7	1
11.....	Engine 41.....	10	1
11.....	Engine 51.....	10	
Total.....			8

CHANNEL COAL STATIONS.

DIVISION 3.

DISTRICT.	Location.	Capacity. (Tons.)	Wagon.
9.....	Engine 12.....	5	1
9.....	Engine 21.....	6	1
9.....	Engine 23.....	5	
9.....	Engine 24.....	7	
10.....	Engine 17.....	3	1
10.....	Engine 18.....	5	1*
12.....	Engine 28.....	20	1
13.....	Engine 30.....	9	1
13.....	Engine 45.....	9	1
14.....	Engine 16.....	5	1
14.....	Engine 20.....	7	1
14.....	Engine 46.....	4	
15.....	Engine 19.....	8	1
15.....	Engine 48.....	10	1
Total.....	.....	.....	11

Coal stations at Sleeper street and Charles River avenue were abandoned at a saving in rental to the department.

GASOLENE STATIONS.

DIVISION 1.

DISTRICTS.	Location.	Capacity (Gallons.)	Pump.
1.....	Engine 5.....	280	1 gallon.
1	Engine 11.....	110	1 gallon.
2.....	Engine 36.....	280	1 gallon.
2.....	Engine 50.....	280	1 gallon.
2.....	Ladder 9.....	220	1 quart.
3.....	Ladder 8.....	120	1 gallon.
3.....	Ladder 18.....	280	1 gallon.
3.....	Engine 39.....	280	1 gallon.
4.....	Engine 4.....	280	1 gallon.
4.....	Engine 6.....	280	1 gallon.
4.....	Engine 8.....	280	1 gallon.
4.....	Ladder 1.....	280	1 gallon.
5.....	Ladder 17.....	280	1 gallon.
5.....	Rescue 1.....	550	1 gallon.
5.....	Engine 10.....	220	1 quart.
5.....	Engine 26.....	280	1 gallon.

GASOLENE STATIONS.

DIVISION 2.

DISTRICTS.	Location.	Capacity (Gallons.)	Pump.
6.....	Engine 1.....	280	1 gallon.
6.....	Engine 2.....	280	1 gallon.
6.....	Engine 15.....	280	1 gallon.
6.....	Engine 43.....	280	1 gallon.
7.....	Engine 3.....	280	1 gallon.
7.....	Engine 22.....	280	1 gallon.
7.....	Engine 33.....	280	1 gallon.
7.....	Bristol street repair shop.....	550	1 gallon.
7.....	Wareham street garage.....	280	1 gallon.
8.....	Engine 13.....	550	1 gallon.
8.....	Engine 14.....	280	1 gallon.
8.....	Engine 37.....	120	1 gallon.
8.....	Ladder 12.....	280	1 gallon.
11.....	Engine 29.....	280	1 gallon.
11.....	Engine 34.....	280	1 gallon.
11.....	Engine 41.....	280	1 gallon.
11.....	Engine 51.....	280	1 gallon.

GASOLENE STATIONS.

DIVISION 3.

DISTRICTS.	Location.	Capacity (Gallons.)	Pump.
9.....	Engine 12.....	550	1 gallon.
9.....	Engine 21.....	280	1 gallon.
9.....	Engine 23.....	280	1 gallon.
9.....	Engine 24.....	550	1 gallon.
9.....	Ladder 4.....	120	1 gallon.
10.....	Engine 17.....	280	1 gallon.
10.....	Engine 18.....	280	1 gallon.
10.....	Engine 52.....	220	1 quart.
12.....	Engine 28.....	280	1 gallon.
12.....	Engine 42.....	115	1 quart.
12.....	Ladder 23.....	220	1 quart.
13.....	Engine 30.....	280	1 gallon.
13.....	Engine 45.....	200	1 quart.
13.....	Engine 53.....	120	1 gallon.
14.....	Engine 20.....	280	1 gallon.
14.....	Engine 46.....	220	1 gallon.
14.....	Ladder 6.....	280	1 gallon.
15.....	Engine 19.....	280	1 gallon.
15.....	Engine 48.....	280	1 gallon.
15.....	Engine 49.....	280	1 gallon.

During the year all gasolene tanks were drained and cleared of slag and sediment.

ENGINES.

FIRE DEPARTMENT.

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Number.	Built by	Put in Service.	Rebuilt by	Date.	Diameter of Cylinder.	Stroke.	Size.	Weight (Pounds).
1.....	American LaFrance pump.	Dec. 19, 1921	.....	.....	5 $\frac{1}{4}$	.....	6	First.
2.....	Seagrave triple combination pump, 750 gallons.	June 29, 1917	.....	.....	5 $\frac{1}{4}$	.....	6 $\frac{1}{4}$	Third.
3.....	Christie Tractor (Manchester Locomotive Company)	June 16, 1917	.....	.....	7 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Second.
4.....	Christie Tractor (International Power Company)	June 16, 1917 1911	.....	.....	7 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Second.
5.....	American LaFrance Company motor pump, 750 gallons.	Jan., 1919	.....	.....	5 $\frac{1}{4}$	.....	6	First.
6.....	American LaFrance 750-gallon pump,	July 13, 1922	.....	.....	5 $\frac{1}{4}$	.....	6	Second.
7.....	American LaFrance 1,000-gallon pump,	Aug. 10, 1922	.....	.....	5 $\frac{1}{4}$	.....	6	Second.
8.....	Christie Tractor (American-British Company)	July 5, 1917 May, 1911	.....	.....	7 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Second.
9.....	Amoskeag Manufacturing Company.	April, 1870	American Fire Engine Company . . .	1902	7 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Second.
10.....	American LaFrance 1,000-gallon pump.	Sept. 3, 1920	.....	.....	5 $\frac{1}{4}$	.....	6	Second.
11.....	American LaFrance triple pumper, 750 gallons.	July 3, 1914	.....	.....	5 $\frac{1}{4}$	.....	6	First.
12.....	American LaFrance 750-gallon pump,	July 19, 1922	.....	.....	5 $\frac{1}{4}$	.....	6	Second.
13.....	American LaFrance 750-gallon pump,	Aug. 1, 1922	.....	.....	5 $\frac{1}{4}$	.....	6	Second.

Engines.—Continued.

NUMBER.	Built by	Put in Service.	Built by	Date.	Diameter of Cylinder.	Diameter of Pump.	Stroke.	Size.	Weight. (Pounds.)
14.....	American LaFrance combination pump-hose car, 750 gallons.	Dec. 19, 1921	.....	.....	5 $\frac{1}{2}$	.....	6	Second.	10,500
15.....	{ Amoskeag Manufacturing Company, Christie Tractor.....	July 30, 1920 July 30, 1920	{ J. B. Filleul & Son	1919	8 $\frac{1}{2}$	5	8	First.	14,350
16.....	American LaFrance combination pump-hose car, 750 gallons.	Oct. 19, 1921	.....	.....	5 $\frac{1}{2}$	.....	6	Second.	10,500
17.....	{ Christie Tractor..... Amoskeag Manufacturing Company,	Jan. 7, 1916 1872	{ International Power Company ..	1907	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	Second.	12,380
18.....	American LaFrance combination pump-hose car, 750 gallons.	Oct. 28, 1921	.....	.....	5 $\frac{1}{2}$	.....	6	Second.	10,500
19.....	Seagrave Company, (triple combination pump), 750 gallons.	July 2, 1917	.....	.....	5 $\frac{1}{2}$	.....	6 $\frac{1}{2}$	First.	16,420
20.....	American LaFrance combination pump-hose car, 750 gallons.	Oct. 29, 1921	.....	.....	5 $\frac{1}{2}$	.....	6	Second.	10,500
21.....	{ Christie Tractor..... Amoskeag Manufacturing Company,	Jan. 12, 1916 Sept., 1870	{ International Power Company ..	1907	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	Second.	12,560
22.....	{ Christie Tractor..... Manchester Locomotive Works.....	Sept. 15, 1917 Nov., 1896	.....	.....	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	Second.	12,340
23.....	American LaFrance pump.....	May, 1920	.....	.....	5 $\frac{1}{2}$	.....	6	First.	11,300
24.....	American LaFrance, 750-gallon pump.	July 21, 1922	5 $\frac{1}{2}$	6	Second.	11,300

FIRE DEPARTMENT.

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25.....	Christie Tractor.....	May 15, 1915	9	5½	8	First.	16,000
	American LaFrance Company.....	Dec., 1910	5½	First.	11,300
26.....	American LaFrance pumper.....	Dec., 1920	.....	8	4½	Second.	9,118
27.....	Metropolitan Fire Engine Company,	May, 1920	American Fire Engine.....	1892	.....	Second.	10,500
28.....	American LaFrance pumper.....	April 13, 1920	.....	5½	.....	Second.	9,250
29.....	International Power Company.....	Dec., 1911	Department shops.....	7½	4½	Second.	10,500
30.....	American LaFrance combination pump-hose car, 750 gallons.	Oct. 18, 1921	.....	5½	.....	Second.	10,500
31.....	G. F. Blake Manufacturing Company.	1914	.....	17	10	11 { 1 pump. 3,000 gallons.	104 tons.
32.....	Amoskeag Manufacturing Company, new.....	June, 1907	.....	7½	4½	Second.	9,100
33.....	Christie Tractor, new.....	April 11, 1921	.....	8½	5½	First.	14,240
34.....	International Power Company.....	Feb., 1909	.....	1904	7½	4½	Second.
35.....	Amoskeag Manufacturing Company,	Dec., 1869	American-British Company.....	1904	5½	.....	8,300
36.....	American LaFrance pumper.....	Dec. 10, 1920	.....	5½	.....	Second.	10,500
37.....	Christie Tractor.....	Aug. 13, 1917	.....	1917	8½	5½	First.
38.....	International Power Company.....	Nov., 1909	.....	.....	5½	.....	13,910
39.....	American LaFrance pumper.....	Oct. 18, 1920	.....	.....	5½	.....	10,500
40.....	Manchester Locomotive Works (self-propeller).	June, 1897	J. B. Filleul & Son.....	1917	9½	8	Double extra first.
41.....	Christie Tractor.....	May 10, 1917	.....	1915	8½	5	First.
	Manchester Locomotive Works.....	June, 1901	American-British Company.....	.....	.....	.....	14,300
	American Locomotive Company.....	Jan., 1906	.....	8½	5	First.	10,350
	American LaFrance pumper.....	Jan. 26, 1921	.....	5½	.....	Second.	10,500

Engines.—Concluded.

NUMBER.	Built by	Put in Service.	Rebuilt by	Date.	Diameter of Cylinder.	Stroke.	Size.	Weight. (Pounds.)
42.	Christie Tractor.....	Sept. 17, 1920	.....	.....	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	Second. 13,000
	Amoskeag Manufacturing Company.							
43.	American LaFrance Company, 750-gallon pump.	Jan. 8, 1923	.....	.....	5 $\frac{1}{2}$	.....	6	Second. 11,300
44.	American Fire Engine Company.....	Aug., 1895	.....	.....	12 $\frac{1}{2}$ H. P. 18 L. P.	10	11	2 sets of pumps, 6,000 gallons, 178 tons.
45.	American LaFrance Company, 750-gallon pump.	Jan. 13, 1923	.....	.....	5 $\frac{1}{2}$	.....	6	Second. 11,300
46.	American LaFrance pumper.....	Oct. 25, 1920	.....	.....	5 $\frac{1}{2}$	.....	6	Second. 10,500
47.	G. F. Blake Manufacturing Company.	Aug., 1909	.....	.....	12 H. P. 22 L. P.	10	11	2 sets of pumps, 6,000 gallons, 179 tons.
48.	Christie Tractor.....	Oct. 25, 1920	.....	.....	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	Second. 12,100
	American Locomotive Company.....	1920	.....	.....		
49.	American LaFrance triple combination.	Aug. 9, 1922	.....	.....	5 $\frac{1}{2}$	.....	6	First. 12,000
50.	American LaFrance pumper.....	1919	.....	.....	5 $\frac{1}{2}$	.....	6	First. 11,500
51.	American LaFrance Company. (Triple combination pumper.)	July 12, 1920	.....	.....	5 $\frac{1}{2}$	.....	6	First. 12,000
52.	American LaFrance Company, 750-gallon pumper.	Dec. 19, 1921	.....	.....	5 $\frac{1}{2}$	.....	6	Second. 10,500
53.	Seagrave pumper triple combination, 750 gallons.	Aug. 12, 1916	.....	.....	5 $\frac{1}{2}$	.....	6 $\frac{1}{2}$	Second. 16,420

In Reserve.

NUMBER.	Built by.	Put in Service.	Rebuilt by	Date.	Size.	Weight. (Pounds.)
113-T....	Christie Tractor. (American Locomotive Company.)	July, 1903	Manchester Locomotive Works.	1916	8 $\frac{1}{2}$	5
107-T....	Christie Tractor. (American International Power Company.)	July 28, 1915 { Feb., 1909	.....	.....	7 $\frac{1}{2}$	4 $\frac{1}{2}$
105-T....	Christie Tractor. (International Power Company.)	Feb., 1909	.....	.....	7 $\frac{1}{2}$	4 $\frac{1}{2}$
108-T....	Christie Tractor, Amoskeag Manufacturing Company.	Dec. 20, 1915 { Nov., 1867	American Locomotive Company,	1004	7 $\frac{1}{2}$	4 $\frac{1}{2}$
100-P....	American LaFrance triple combination.	July 3, 1914	.....	.....	5 $\frac{1}{2}$	6
101-P....	American LaFrance triple combination.	Aug. 2, 1914	.....	.....	5 $\frac{1}{2}$	6
152-P....	American LaFrance 750 gallon pump.	Sept. 12, 1922	.....	.....	5 $\frac{1}{2}$	6
137-P....	American LaFrance triple combination.	1920	.....	.....	5 $\frac{1}{2}$	6
						14,240
						13,150
						12,400
						11,200
						11,200
						11,200
						10,500

HORSE-DRAWN ENGINES (IN RESERVE).

NUMBER.	Built by	Put in Service.	Diameter of Cylinder.	Diameter of Pump.	Stroke.	Size.	Weight (Pounds.)
619.....	Amoskeag.....	1906	6 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Third.	8,500
2,367.....	Clapp & Jones.....	1907	9	5 $\frac{1}{2}$	8	First.	10,000
721.....	Amoskeag.....	1890	6 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Third.	8,500
252.....	Amoskeag.....	1867	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	Second.	8,415
964.....	Metropolitan.....	1890	8	4 $\frac{1}{2}$	8	Second.	9,000
1,836.....	Metropolitan.....	1890	8 $\frac{1}{2}$	5	6	Second.	9,150
534.....	Amoskeag.....	1905	6 $\frac{1}{4}$	4 $\frac{1}{4}$	8	Third.	8,000
808.....	Amoskeag.....	1907	8	5	8	First.	9,000
2,163.....	Metropolitan.....	1893	9	5 $\frac{1}{2}$	8	First.	9,900
963.....	Selsby.....	1890	7	4 $\frac{1}{2}$	8	Second.	9,150

HOSE WAGONS (IN RESERVE).

Six (6) horse-drawn.
 Two (2) Seagrave combination hose and chemical (motor).
 Two (2) American LaFrance combination hose and chemical (motor).
 One (1) American LaFrance straight hose car (motor).

LADDER TRUCKS.

NUMBER.	Built by	Put in Service.	Rebuilt by	Feet of Ladders.	Number of Ladders.	Weight. (Pounds.)
1.....	American LaFrance, Type 17, 4-wheel tractor attached (75 foot aerial).....	May 27, 1922	Motor driven.....	354	Aerial.	23,030
2.....	Abbott-Downing Company.....	1899	.....	440	15	10,800
3.....	Abbott-Downing Company.....	June 2, 1886	Department Repair Shops.....	381	12	9,450
4.....	American LaFrance Company (85-foot) Type 25.....	Sept. 28, 1914	Motor driven.....	354	Aerial.	21,040
5.....	Seagrave Company (75-foot).....	June 20, 1917	Motor driven.....	309	Aerial.	25,130
6.....	Christie Tractor.....	March 2, 1917	.....	207	8	13,400
7.....	C. N. Perkins & Co.....	Aug., 1905	.....	254	9	12,000
8.....	Robinson Fire Apparatus Manufacturing Company.....	Dec. 9, 1914	Motor driven.....	394	Aerial.	20,000
9.....	{ Seagrave Company (85-foot) American LaFrance Tractor.....	Oct. 31, 1921	Motor driven.....	460	17	10,040
10.....	Abbott-Downing Company.....	1884	.....	302	11	10,000
11.....	American LaFrance Company.....	Oct., 1920	Motor driven.....	281	10	10,050
12.....	American LaFrance. (City service truck).....	Dec. 31, 1912	Motor driven.....	335	Aerial.	26,000
13.....	American LaFrance Company (75-foot).....	Nov. 8, 1919	Motor driven.....	294	Aerial.	20,000
14.....	American LaFrance Company (85-foot), Type 31.....	Oct. 1, 1919	.....	346	Aerial.	20,000
15.....	American LaFrance Company (85-foot), Type 31.....	May, 1919	.....	352	Aerial.	20,000
		Jan. 11, 1920	.....		

Ladder Trucks.—Concluded.

NUMBER.	Built by	Put in Service.	Rebuilt by	Feet of Ladders.	Number of Ladders.	Weight. (Pounds.)
16.....	Christie Tractor..... [Fire Department Repair Shop.....	Dec. 21, 1915 Sept., 1888	..... .....	268	10	13,440
17.....	Christie Tractor..... Seagrave Company (75-foot).....	July 27, 1915 June, 1911	..... .....	323	Aerial.	17,100
18.....	Christie Tractor..... Seagrave Company (85-foot).....	May 21, 1915 April, 1910	..... .....	340	Aerial.	17,025
19.....	Fire Extinguisher Manufacturing Company.....	Jan., 1898	.....	172	8	6,937
20.....	Christie Tractor..... Charles N. Perkins Company.....	Oct. 27, 1915 Dec. 30, 1902	..... .....	247	10	13,100
21.....	American LaFrance Company, Type 14.....	Dec. 10, 1913	Motor driven.....	243	9	11,500
22.....	Christie Tractor..... Charles T. Holloway.....	June 11, 1917 Jan., 1898	..... .....	209	8	13,500
23.....	American LaFrance Company.....	Dec., 1910	.....	268	11	7,300
24.....	Charles T. Holloway.....	Oct., 1901	.....	228	9	7,100
25.....	Christie Tractor..... Charles T. Holloway.....	April 24, 1917 April 25, 1900	..... .....	177	8	13,440
26.....	Christie Tractor..... Charles N. Perkins.....	Aug. 10, 1922 1908	..... .....	213	7	6,435
27.....	American LaFrance.....	Nov., 1901	.....	261	9	8,000
28.....	American LaFrance Company, Type 14.....	Nov., 1920	Motor driven.....	272	10	10,000
29.....	American LaFrance Company, Type 14.....	May 5, 1913	Motor driven.....	274	11	10,780
30.....	American LaFrance Company, Type 14.....	Jan. 23, 1913	Motor driven.....	257	10	8,900

In Reserve.

NUMBER.	Built by	Date.	Weight. (Pounds.)
209-T.....	Christie Tractor..... American LaFrance. (85 foot aerial).....	1918	17,800
220-T.....	Christie Tractor..... American LaFrance. (85-foot aerial).....	1919	18,000
223-T.....	Christor Tractor..... American LaFrance. (85-foot aerial).....	1917	17,660
213-T.....	Christie Tractor..... Charles T. Holloway.....	1898	12,050
216-T.....	Christie Tractor..... Hunnenman & Co.....	1874	8,000
217-T.....	Christie Tractor..... Waugh & Co.....	1872	15,200

There are also four horse-drawn city service trucks, ranging in weights from 6,000 to 10,000 pounds. There are four condemned city service trucks, awaiting disposition, two (2) at Ladder 12's quarters and two at the Veterinary Hospital.

CHEMICAL ENGINES.

NUMBER.	Built by	Put in Service.	Remarks.	Capacity.	Weight.
7.....	Seagrave Company.....	Feb. 5, 1917	Combination, motor driven.....	35	9,310

In Reserve.

NUMBER.	Built by	Put in Service.	Remarks.	Capacity.	Weight.
1.....	American LaFrance Company.....	Dec. 1910	.....	100	5,460
2.....	Babcock Manufacturing Company.....	Sept. 27, 1876	Altered by Hennan, 1886.....	100	4,880
7.....	Babcock Manufacturing Company.....	1873	.....	100	4,700

Note.—Five horse-drawn chemicals to be sold.

WATER TOWERS.

NUMBER.	Built by	Put in Service.	Weight. (Pounds.)
1.....	American LaFrance Company.....	Oct., 30, 1912	14,600
2.....	Kansas City Fire Department Supply Company.....	May 17, 1890	10,000
3.....	International Company	Nov. 2, 1903	12,050
4 (Reserve).....	Kansas City Fire Department Supply Company.....	Dec. 18, 1893	10,000

Towers are equipped with American-British Company tractors.

TOOLS AND MACHINERY IN REPAIR SHOP.

Blacksmith Shop.	Boiler Room.	Hose and Harness Shop.	Engine Room.	Wheelwright and Machine Shop.
5 forges. 1 power hammer. 1 gas tire heater. 1 tire upsetting. 1 punch and shears. 1 lever shears. 1 tire roller. 2 rubber tire setters. 1 bolt cutter. 1 fan blower. 1 power hack saw.	3 vertical tubular boilers, each 15-horse power. 2 Blake boiler feed pumps.	1 Buckley electric hose testing engine and expanding engine. 2 electrically-driven sewing machines. Numerous tools and appliances for repairing hose and harnesses. 1 15 horse power motor. 2 dynamos and engines which supply current to fire alarm and central station. 1 Richardson-Phenix motor oil purifier (Model L).	1 25 horse power steam engine cylinder, 9 by 31. 1 Knowles triplex pump for hose testing. 1 16 by 10 wood lathe. 1 16 by 26 planer, 8-foot bed. 1 planer, 16 by 29, shaper. 1 radial drill. 3 upright drills. 1 wall drill. 1 circular saw. 1 band saw. 1 boring and mortising machine. 2 buzz planers. 1 grindstone.	1 each engine lathes, with foot beds, 28 by 12, 16 by 12, 16 by 9, 14 by 8, and 14 by 6. 1 16 by 10 speed lathe. 1 16 by 10 wood lathe. 1 26 by 26 planer, 8-foot bed. 1 planer, 16 by 29, shaper. 1 radial drill. 3 upright drills. 1 wall drill. 1 circular saw. 1 band saw. 1 boring and mortising machine. 2 buzz planers. 1 grindstone. Numerous small tools. 1 Brown & Sharpe universal milling machine. 1 motor-driven valve grinding machine.

Also tools for the repair of automobile apparatus.

EXPENDITURES FOR THE YEAR.

Personal service:

Permanent employees	\$2,498,919 24
Temporary employees	603 42
Unassigned	3,797 03
	<hr/>

\$2,503,319 69

Service other than Personal:

Printing and binding	\$60 93
Postage	759 34
Advertising and posting	31 05
Transportation of persons	998 31
Cartage and freight	243 45
Hire of teams and auto trucks,	1,633 00
Light and power	17,929 49
Rent, taxes and water	5,796 78
Premium on surety bond	15 00
Communication	2,762 81
Motor vehicle repairs and care,	12,472 40
Motorless vehicle repairs	2,600 00
Cleaning	7,241 19
Medical	162 00
Veterinarian	500 00
Fees, service of venires, etc.	647 00
Boiler inspection	171 00
Photographic and blueprinting,	799 52
General plant	39,910 60
Horseshoeing and clipping	7,256 95
	<hr/>

101,990 82

Equipment:

Cable, wire, etc.	\$9,130 95
Electrical	7,505 42
Motor vehicles	143,072 75
Stable	2,690 53
Furniture and fittings	7,587 90
Office	876 27
Library	56 25
Marine	30 85
Tools and instruments	28,704 94
Wearing apparel	22,486 19
General plant	2,537 63
	<hr/>

224,679 68

Supplies:

Office	\$5,204 66
Food and ice	826 17
Fuel	78,316 15
Forage and animal	14,873 20
Medical, surgical, laboratory	144 61
	<hr/>

<i>Carried forward</i>	\$99,364 79	\$2,829,990 19
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<i>Brought forward</i>		\$99,364 79	\$2,829,990 19
Veterinary		28 64	
Laundry, cleaning, toilet		2,312 71	
Motor vehicle		21,789 86	
Chemicals and disinfectants		2,275 01	
General plant		4,839 63	
Cloth		22 50	
			<u>130,633 14</u>
Materials:			
Building		\$15,311 44	
Electrical		2,856 34	
General plant		33,790 61	
			<u>51,958 39</u>
Special items:			
Pensions and annuities		\$238,033 25	
Workingmen's compensation		1,353 70	
			<u>239,386 95</u>
			<u>\$3,251,968 67</u>
Wire Division:			
Personal service:			
Permanent employees		\$76,007 42	
Service other than Personal:			
Printing and binding		\$17 70	
Postage		200 00	
Advertising and post-			
ing		107 40	
Transportation of			
persons		2,487 66	
Premium on surety			
bond		6 00	
Communication		347 04	
Fees, service of ve-			
nires, etc.		2 00	
Photographic and			
blueprinting		2 15	
General plant		27 40	
			<u>3,197 35</u>
Equipment:			
Electrical		\$114 32	
Motor vehicle		3,304 25	
Tools and instru-			
ments		28 30	
			<u>3,446 87</u>
Supplies:			
Office		\$1,865 65	
Motor vehicle		344 75	
General plant		1 85	
			<u>2,212 25</u>
<i>Carried forward</i>		\$84,863 89	\$3,251,968 67

<i>Brought forward</i>		\$84,863 89	\$3,251,968 67
Materials:			
Electrical		\$10 08	
General plant		50 80	
		60 88	
Special items:			
Pensions and annuities		612 50	
		85,537 27	
		<u>\$3,337,505 94</u>	

ENGINE 7, NEW BUILDING.

Payments on account:

Contractors, C. & R. Construction Company,	\$16,660 00
Blueprints	93 81
Advertising	10 35
	<u>\$16,764 16</u>

REMODELING HOUSE, ENGINE 26 AND 35.

Continuation of payments:

Contractor, Joseph Rugo	\$8,715 85
Composition floors	2,371 00
Brass railings	287 00
Flagpole parts	76 00
One case	60 00
Advertising	22 55
Blu print	10 43
	<u>\$11,542 83</u>

REMODELING HOUSE, ENGINE 28 AND LADDER 10.

Continuation of payments.

Contractor, Burton M. Gwinn, final payment	<u>\$9,997 00</u>
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RECAPITULATION.

Fire Department	\$3,337,505 94
Engine 7, new building	16,764 16
Remodeling house, Engine 26 and 35	11,542 83
Remodeling house, Engine 28 and Ladder 10	9,997 00
	<u>\$3,375,809 93</u>

INCOME.

Permits for fires in open spaces, fireworks, blasting, transportation and storage of explosives	\$13,093 50
Sale of old material	1,357 87
Sale of wagon and harness	120 00
Sale of badges	979 00
Damage to hose	8 40
Damage to fire alarm posts and boxes	932 58
Sale of coal and oil	24 96
Damage to apparatus	111 30
Sale of manure	47 25
Sale of Ediphone	100 00
Coal penalty	61 17
	<hr/>
	\$16,836 03
Wire Division:	
Permits	55,753 63
	<hr/>
	\$72,589 66

ALARMS, FIRE LOSSES AND INSURANCE.

MONTHS.	ALARMS RECEIVED.		LOSS.		INSURANCE.		ALARMS.		STILL.		NEEDLESS.	EXTENDED TO OTHERS.	NOT IN BUILDING.	OUT OF CITY.	DAMAGE NONE.	DAMAGE SLIGHT.	DAMAGE CONSIDERABLE.	TOTALLY DESTROYED.								
	FROM WHOM.		BUILDINGS.		CONTENTS.		BUILDINGS.		CONTENTS.																	
	MEMBERS.	OFFICERS.	CITIZENS.	TELEPHONE.	UNKNOWNS.	AUTOMATICS.	BUILDINGS.	CONTENTS.	BUILDINGS.	CONTENTS.																
January.....	8	13	289	157	17	12	496	\$138,935	\$176,522	\$4,222,053	\$2,105,507	203	11	17	203	53	339	3	57	7	122	215	5	...		
February.....	6	18	224	97	10	11	366	135,711	240,398	5,595,950	5,204,166	168	10	10	135	38	251	4	47	1	90	154	11	...		
March.....	10	15	373	278	14	15	705	127,784	329,766	4,214,704	2,170,436	267	11	15	362	41	279	8	337	5	88	190	9	...		
April.....	6	16	383	361	12	11	789	66,594	134,618	2,631,929	985,787	282	14	10	441	36	235	5	472	11	82	153	5	...		
May.....	5	18	355	222	16	10	626	82,800	143,240	3,846,525	6,474,161	238	11	6	331	32	233	3	326	7	49	182	5	...		
June.....	6	14	242	102	19	19	402	83,737	381,949	2,988,501	1,607,354	147	21	18	163	38	182	3	123	2	58	119	8	...		
July.....	4	12	274	102	14	21	427	86,337	119,963	2,551,035	1,581,703	174	21	15	173	34	196	2	147	2	55	140	3	...		
August.....	1	5	177	90	13	12	298	76,754	86,779	2,902,900	524,193	106	10	18	122	31	127	3	97	1	46	80	4	...		
September.....	2	14	221	89	11	16	353	30,932	38,466	1,507,458	867,000	138	15	21	131	40	166	2	100	1	52	113	3	...		
October.....	5	13	300	206	15	22	561	48,747	65,496	2,202,582	2,572,050	209	21	16	253	47	254	8	194	6	103	155	4	...		
November.....	5	20	331	212	9	13	590	118,610	176,979	4,674,272	1,558,551	239	13	12	281	39	274	5	238	3	111	161	7	...		
December.....	7	18	303	166	15	12	521	217,493	195,989	7,548,524	2,957,151	221	11	14	222	45	336	9	94	4	132	199	13	1		
Totals.....	65	176	3,472	2,082	165	174	6,134	\$1,214,434	\$2,090,161	\$44,886,433	\$28,608,059	2,392	169	172	2,817	474	2,872	55	2,282	50	988	1,881	77			

CAUSES OF FIRES AND ALARMS FROM JANUARY 1, 1922,
TO JANUARY 1, 1923.

Alarms, false, needless, bell and still	815	Grease in ventilator	61
Alarms, out of city	50	Hot ashes in wooden receptacle	89
Automatic alarms, false and accidental	110	Incendiary and supposed	18
Automobiles	281	Lamp upsetting and explosion	21
Brush, rubbish, etc.	1,534	Miscellaneous	338
Careless use lamp, candle	65	Oil stove, careless use and explosion	49
Careless use matches and set by rats	459	Overheated furnace, stove, boiler	107
Careless use pipe, cigar and cigarettes	468	Set by boys	143
Chimneys, soot burning	253	Sparks from chimneys, stove	131
Clothes near stove	19	Sparks from locomotive engine	71
Defective chimney, stove-pipe, boiler	112	Spontaneous combustion	116
Electric wires, motors	157	Thawing water pipes	47
Fireworks and firecrackers	24	Unknown	517
Gas jet and gas stove	67		
Gasolene, naphtha, benzine,	12		
		Total	6,134

1922.	FIRE EXTINGUISHED BY						
	Extinguishers.	Buckets of Water.	Chemical Engines.	Hydrant Streams.	Steamers.	Miscellaneous.	Citizens.
January.....	92	41	100	29	50	59	28
February.....	69	25	82	24	40	39	23
March.....	102	56	95	112	35	195	29
April.....	97	88	90	176	33	191	37
May.....	111	59	92	117	32	105	46
June.....	76	44	45	49	27	40	27
July.....	82	35	61	66	24	41	36
August.....	68	20	46	24	19	27	23
September.....	77	32	59	26	21	29	24
October.....	117	55	80	72	26	69	37
November.....	109	65	92	75	30	107	39
December.....	89	44	98	52	33	76	47
Totals.....	1,089	564	940	822	370	978	396

FIRES WHERE LOSSES EXCEEDED \$15,000.

DATE.	Location and Owner.	Loss.
1922.		
Jan. 14.....	90 and 92 Essex street, Acorn Clothing Company <i>et al.</i>	\$15,257
Jan. 20.....	99-105 Richmond street, R. Goodnow Estate <i>et al.</i>	79,779
Jan. 24.....	1028-1044 Blue Hill avenue, S. Gorfey <i>et al.</i>	21,969
Jan. 30.....	1090-1104 Commonwealth avenue, M. Straussel <i>et al.</i>	26,575
Feb. 1.....	6, 7 and 8 Brighton Abbatoir, Lebonan Kosher Wurst Company.....	45,481
Feb. 7.....	Brighton Abbatoir, Brighton Dressed Beef Company <i>et al.</i>	55,497
Feb. 9.....	62-266 Friend street, Aronson Brothers <i>et al.</i>	36,829
Feb. 13.....	39 and 41A Washington street, Royal Clothing Company <i>et al.</i>	20,603
Feb. 20.....	77 Washington Street North, Daniels Printing Company <i>et al.</i>	20,798
March 2.....	605-611 Washington street, Bowdoin Manufacturing Company <i>et al.</i>	56,436
March 16.....	372-378 Boylston street, I. Schneider <i>et al.</i>	20,208
March 25.....	Rear of 81 Wareham street, Gordon Supply Company <i>et al.</i>	170,560
March 30.....	7 Albany street, J. Pearl & Co.	26,157
April 29.....	39-43 Tremont street, Kimball Company, Inc., <i>et al.</i>	76,454
May 18.....	49-51 Fulton street, Beacon Grocery Company <i>et al.</i>	41,090
May 24.....	154-160 Washington street, Smith Manufacturing Company <i>et al.</i>	24,861
May 30.....	272 Border street, Acme White Lead Works.....	49,559
June 4.....	44-56 Pitts street, C. Bonanno Laundry Company <i>et al.</i>	17,205
June 10.....	168 and 170 A street, Blake, Boas & Kelligrew <i>et al.</i>	302,888
June 2.....	24-30 School street, Kriss Typewriter Company <i>et al.</i>	23,231
June 27.....	89-95 Chauncy street, G. S. Moloof & Son <i>et al.</i>	24,638
July 1.....	718 Commonwealth avenue, W. Kaplan <i>et al.</i>	16,419
July 13.....	Rear of 100 and 102 Condor street, Boston & Lockport Block Company.....	50,786
July 27.....	395 Boylston street, H. F. Miller & Sons <i>et al.</i>	26,160
Aug. 3.....	18 and 20 Oxford street, Standard Hat and Cap Company <i>et al.</i>	18,946
Aug. 8.....	14-24 Federal street and 123 Congress street, Harris Forbes Company, Inc.	24,805
Aug. 18.....	93 Cummings street, Daly Plumbing Supply Company <i>et al.</i>	25,494
Aug. 22.....	47 Union avenue, Atlantic Ice Cream Cone Company <i>et al.</i>	21,002
Aug. 24.....	76 and 78 Westland avenue, S. Schlesinger Estate <i>et al.</i>	18,866
Oct. 13.....	55 and 57 Causeway street and 40 Lancaster street, American Syrup Company <i>et al.</i>	15,515

Fire Losses.—Concluded.

DATE.	Location and Owner.	Loss.
Oct. 26.....	27 Scotia street, Edison Electric Illuminating Company.....	\$15,000
Nov. 13.....	393-407 Dorchester avenue, Hunt, Spiller Manufacturing Company <i>et al.</i>	27,273
Nov. 18.....	46-54 Bromfield street, Leonard Company <i>et al.</i>	100,554
Nov. 28.....	44 and 48 Portland street, Louis Model Company <i>et al.</i>	23,234
Dec. 4.....	680-684 Washington street, C. & J. Hercovitz <i>et al.</i>	15,713
Dec. 16.....	107 and 109 West Brookline street, S. Alperin <i>et al.</i>	35,662
Dec. 17.....	94-98 Washington street, Morse Office Equipment Company <i>et al.</i>	19,106
Dec. 21.....	39 Newbury street, F. L. Dunne <i>et al.</i>	16,596
Dec. 28.....	19-23 Damrell street, McLean Manufacturing Company <i>et al.</i> ,	31,511
Dec. 29.....	704-724 Washington street, R. B. Brighton Estate <i>et al.</i>	71,366

STATISTICS.

Population, January 1, 1923 (estimated)	.	.	832,678
Area, square miles	.	.	47.81
Number brick, etc., buildings	.	.	33,768
Number of wooden buildings	.	.	77,673
Fires in brick and stone buildings	.	1,660	
Fires in wooden buildings	.	1,267	
Out of city	.	50	
Not in buildings, false and needless	.	3,157	
 Total alarms	.	.	6,134

FIRE LOSS FOR THE YEAR ENDING DECEMBER 31, 1922.

Building loss insured	.	\$1,183,045
Contents, loss insured	.	1,992,276
		<hr/>
		\$3,175,321
Buildings, loss not insured	.	\$31,389
Contents, loss not insured	.	97,885
		<hr/>
		129,274
Total loss buildings and contents	.	<hr/> <u>\$3,304,595</u>
 Marine loss	.	<hr/> <u>\$14,337</u>

YEARLY LOSS FOR THE LAST FIFTEEN YEARS.

Year ending February 1, 1908	.	.	\$2,268,074
" " "	1, 1909	.	3,610,000
" " "	1, 1910	.	1,680,245
" " "	1, 1911 (11 months)	.	3,159,989
" " January	1, 1912	.	2,232,267
" " "	1, 1913	.	2,531,017
" " "	1, 1914	.	* 3,138,373
" " "	1, 1915	.	3,013,269
" " "	1, 1916	.	3,004,600
" " "	1, 1917	.	† 2,372,489
" " "	1, 1918	.	† 3,981,227
" " "	1, 1919	.	2,822,109
" " "	1, 1920	.	2,577,584
" " "	1, 1921	.	3,139,566
" " "	1, 1922	.	4,010,201
" " "	1, 1923	.	3,304,595

* Does not include marine loss of \$1,116,475, steamship "Templemore."

† Does not include marine loss of \$101,312, steamship "City of Naples" *et al.*

‡ Does not include marine loss of \$75,660.

NOTE.—January loss, 1911, amounting to \$165,001, deducted from previous year and included in calendar year January 1, 1911, to January 1, 1912.

ALARMS FOR THE PAST TEN YEARS.*

YEAR.	Bell.	Still and Automatic.	Totals.
1922.....	2,733	3,401	6,134
1921.....	2,359	2,888	5,247
1920.....	2,029	2,456	4,485
1919.....	2,733	2,690	5,423
1918.....	2,413	2,649	5,062
1917.....	2,252	2,526	4,778
1916.....	2,350	2,128	4,531
1915.....	2,847	2,590	5,437
1914.....	2,945	2,589	5,534
1913.....	2,594	2,322	4,916

* Each fire is treated as having only one alarm.

ROLL OF MERIT, BOSTON FIRE DEPARTMENT.

James F. McMahon, District Chief.

Edward McDonough, Captain Engine Company 6.

Thomas J. Muldoon, Captain, Engine Company 16.

Thomas H. Downey, Captain, Engine Company 22.

Michael J. Teehan, Captain, Engine Company 24.
 Joseph P. Hanton, Captain, Engine Company 33.
 Dennis Driscoll, Captain, Engine Company 37.
 Frederick F. Leary, Captain, Ladder Company 3.
 Henry J. Kelley, Lieutenant, Engine Company 32.
 Timothy J. Heffron, Lieutenant, Ladder Company 9.
 Michael J. Dacey, Lieutenant, Ladder Company 20.
 John J. Kennedy, Ladderman, Ladder Company 13.
 Martin A. Kenealy, Captain, retired.
 James E. Downey, Hoseman, retired.

MEMBERS PENSIONED FROM FEBRUARY 1, 1922, TO
 FEBRUARY 1, 1923.

Peter E. Walsh.	Patrick J. Darcy.
John T. Gillen.	William Pease.
Robert H. Webber.	Fitzgerald M. O'Lalor.
Jacob Hyman.	Daniel L. Cadigan.
James M. Burke.	William E. Boyd.
James Mahoney (Fire Alarm).	Frank L. Jewett.
Eugene G. Allen.	William A. Pickard.
Thomas J. Lacey.	William E. Riley.
Joseph L. Bannon.	Bartholomew F. Hayes.
Albert S. Penney.	DeWitt Lane.
Bent E. Benson.	Thomas F. Quigley.
Michaelangelo Laurano.	Daniel J. Kennedy.
John H. Barutio.	Thomas F. Hedrington.
John T. Conley.	

DEATH OF MEMBERS FROM FEBRUARY 1, 1922, TO
 FEBRUARY 1, 1923.

John J. Connorton.	William C. Swan.
William J. Hennessey.	Patrick J. Norton.
Christopher J. Melia.	John F. Higgins, Bureau of
Daniel J. Quinn, Headquarters.	Supplies and Repairs.
Lawrence H. Donahue.	Alexander F. Smith.

DEATH OF PENSIONERS FROM FEBRUARY 1, 1922, TO
 FEBRUARY 1, 1923.

George W. Fuller, Wire Division.	John A. Noonan.
Frank Turnbull.	John S. Cleverly.
Charles H. Cosgrove.	Nicholas Albrecht.
William F. Bryan.	Frank P. Chapman.
William H. Barker.	John E. Madison.
Hadwin Sawyer.	Joseph S. Pine.

CHANGES FROM FEBRUARY 1, 1922, TO FEBRUARY 1, 1923.

Number of men appointed to fire force	.	.	.	.	17
Number of men reappointed to fire force	.	.	.	.	2
All others	.	.	.	.	26
Resigned	.	.	.	.	8
Discharged	.	.	.	.	5
Pensioned	.	.	.	.	27
Deaths	.	.	.	.	9
Pensioners died	.	.	.	.	12

BOSTON FIREMEN'S RELIEF FUND.

BOSTON, September 12, 1922.

To the Members of the Body Corporate of the Boston Firemen's Relief Fund, Boston, Massachusetts.

DEAR SIRS,—We hereby certify that we have audited the accounts of the Treasurer of the Boston Firemen's Relief Fund to the close of business August 31, 1922, and find them correct.

The deposits in the banks and the checks drawn thereon have been compared with the accounts received from the banks, and have been found to agree therewith, and are all properly entered on the books of the treasurer.

Income from all sources is accounted for. Payments are supported by proper vouchers or by paid checks, and the balance on hand at close of business August 31, 1922, is correct.

We examined the securities belonging to the fund, consisting of \$156,000 City of Boston registered bonds; \$8,000 Chicago, Burlington & Quincy coupon bonds; \$54,100 Liberty Loan; \$7,000 City of San Francisco Hospital; \$13,000 City of New Bedford bonds, and certificates of stocks received from the estates of Anne Sargent and Franklin P. Hyde, also \$1,000 war savings stamps.

We have seen a bond issued by the Employees' Liability Assurance Corporation, Ltd., of New York, to D. J. Caddigan, treasurer, for \$25,000.

A summary of receipts and disbursements for the year ending August 31, 1922, is appended hereto.

Respectfully submitted,

AMOS D. ALBEE SON & Co.,
Certified Public Accountants.

RECEIPTS AND DISBURSEMENTS FROM SEPTEMBER 1, 1921, TO
AUGUST 31, 1922.*Receipts.*

Balance, September 1, 1921	5,273 36
Amount received from ball fund	24,079 25
Interest on bonds	\$7,452 50
Less accrued interest paid	89 58
	<hr/>
Interest on Liberty Loan bonds	7,362 92
Dividend on stocks	2,374 25
Interest on deposits	271 40
Donations	157 36
City of Boston bonds matured	335 00
	<hr/>
	\$11,000 00
	<hr/>
	\$50,853 54

Disbursements.

Death and sick benefits, gratuities, medical attendance and medicine	\$24,294 40
Salaries	800 00
Treasurer's bond	\$62 50
Less refund on former bond	34 59
	<hr/>
Free bed, Carney Hospital	27 91
Box at International Trust Company vaults	300 00
Auditing, twelve months	10 00
Expenses, stationery, printing, etc.	180 00
Protectograph purchased	378 50
Legal services	58 80
Paid Hiram Averill, claim of 1916	75 00
Bonds purchased	90 00
	<hr/>
	14,662 50
	<hr/>
Balance, Exchange Trust Company	\$40,877 11
Balance, American Trust Company	1,933 62
Exchange Trust Company Savings Department	42 81
	<hr/>
	8,000 00
	<hr/>
	\$50,853 54





